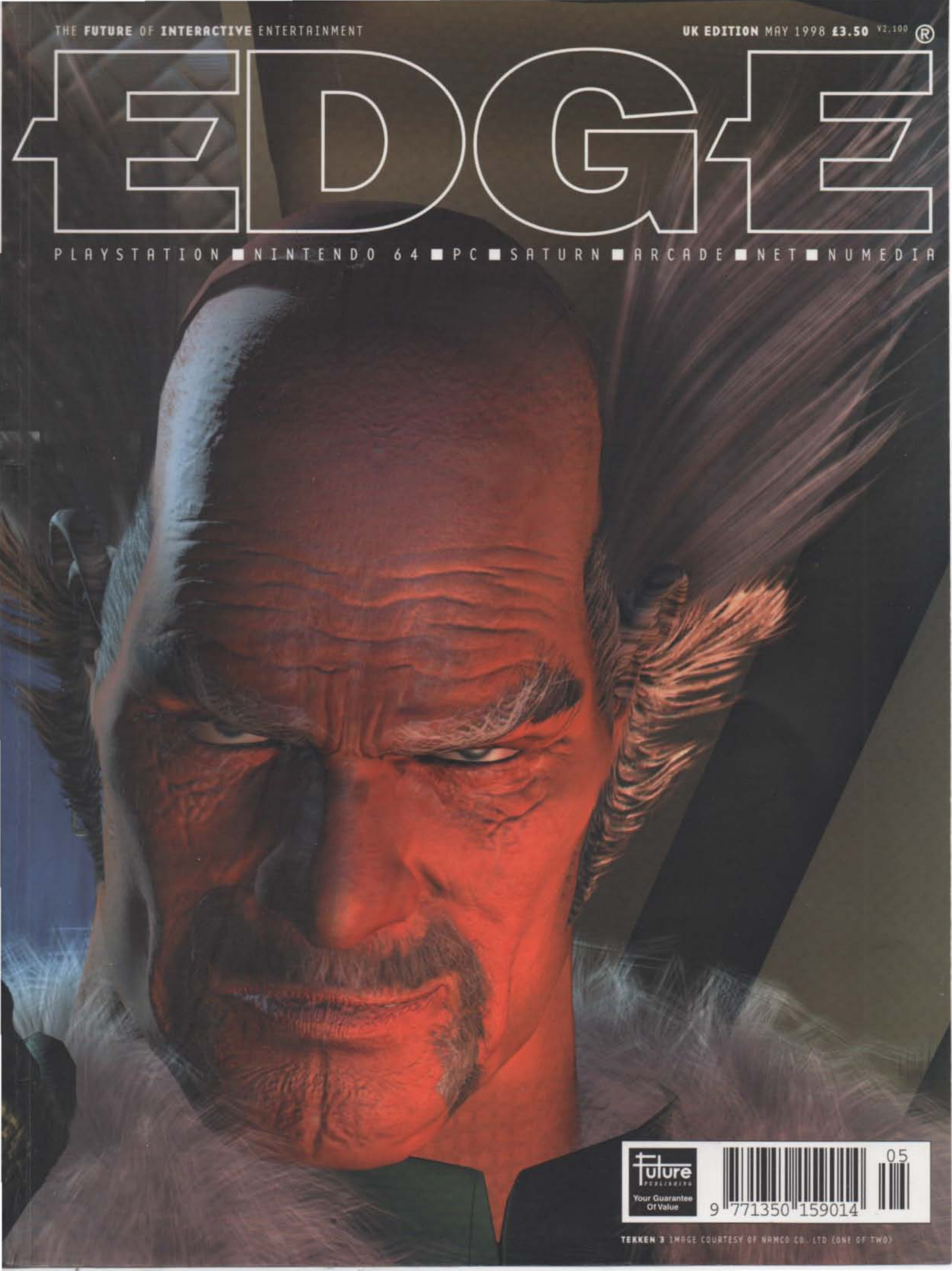
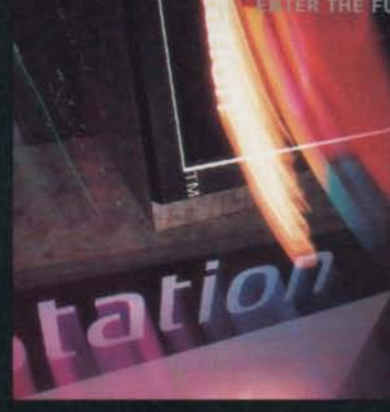


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TEKKEN 3 IMAGE COURTESY OF NAMCO CO. LTD (ONE OF TWO)





Edge has been both commended and derided for its PlayStation coverage over the past four years. Prior to the release of Sony's console, the magazine was accused of bias towards the machine. But this is hardly surprising. The company's ambitious and inspiring plans threw doomed formats such as the Jaguar and 3DO into painfully sharp relief, and the universal support that the industry has since pledged for Sony's PlayStation is reflected in this month's extensive coverage.

While **Edge** would like to be able to provide different formats with equal amounts of coverage, this is neither practical, or more importantly, what the magazine is about. **Edge** exists to single out the most progressive developments in interactive entertainment, allowing the industry's creative highs and lows to be given the respective credit – and space – they deserve within the bigger picture.

The syndrome of formats suffering an endless stream of peaks and troughs is one that consequently must be endured. And it is one that N64 owners are currently experiencing, with big titles such as *1080° Snowboarding* and *Yoshi's Story* falling short of NCL's immaculate standards, and its biggest release since *Mario 64* pushed back until the end of the year. The machine's fortunes will turn around, of course, and when they do, the magazine will undoubtedly reflect this.

Edge remains steadfastly committed to providing an accurate snapshot of the ever-changing nature of the videogaming market. And with the PlayStation currently home to the world's most exciting gaming developments – as well as being the format of choice with games developers – the magazine makes no apologies for celebrating Sony's achievements and the future of its machine this issue. Enjoy.





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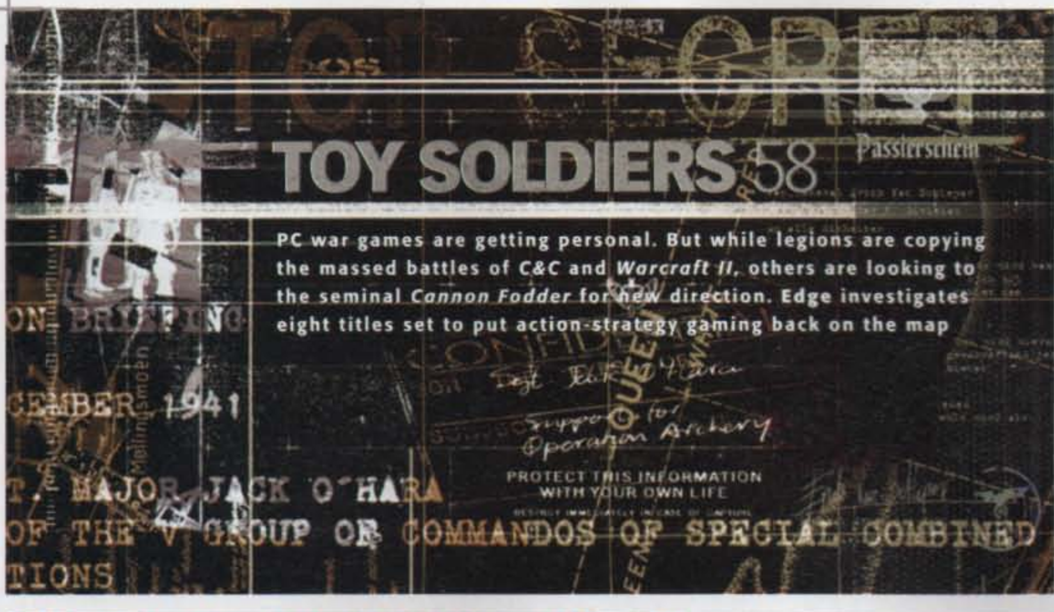
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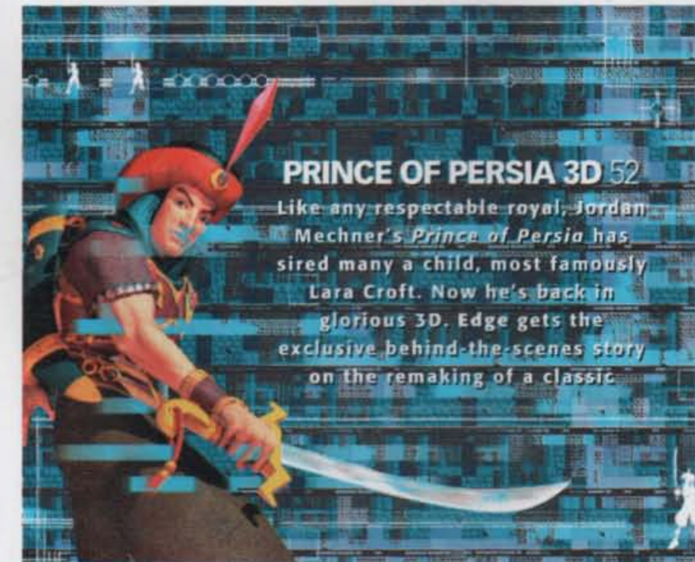
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TOY SOLDIERS 58

PC war games are getting personal. But while legions are copying the massed battles of *C&C* and *Warcraft II*, others are looking to the seminal *Cannon Fodder* for new direction. Edge investigates eight titles set to put action-strategy gaming back on the map



PRINCE OF PERSIA 3D 52

Like any respectable royal, Jordan Mechner's *Prince of Persia* has sired many a child, most famously Lara Croft. Now he's back in glorious 3D. Edge gets the exclusive behind-the-scenes story on the remaking of a classic



MUCKY FOOT 44

The talented Bullfrog tadpole has set about conquering the pond. Edge tests the water...



DIGITAL DISASTERS 74

The world's most celebrated videogaming failures exposed



GAMING GRADUATES 66

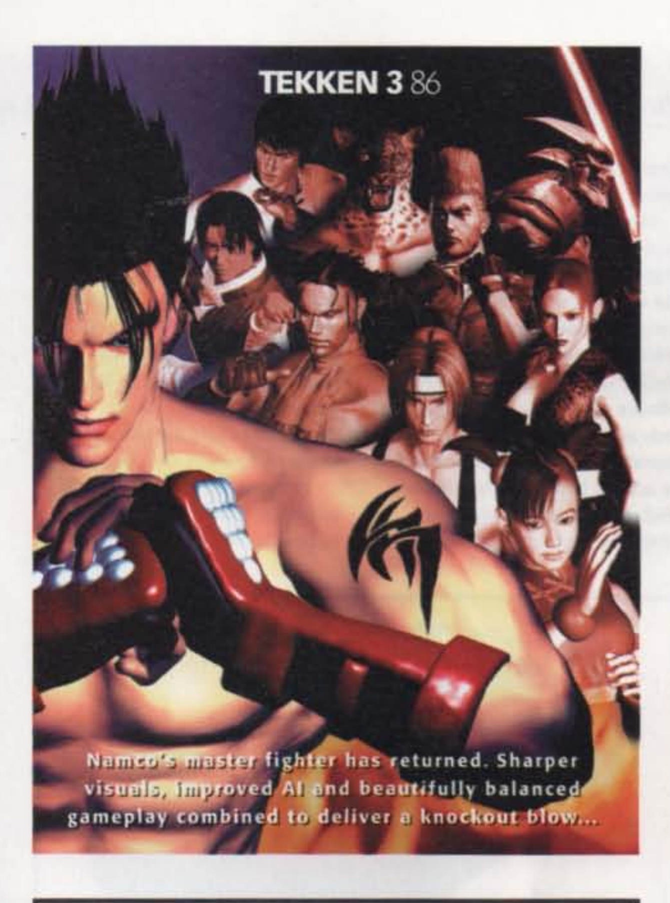
Edge profiles the British universities switching students onto gaming



SOLID STATE 48
Konami stunned all at the Tokyo Game Show. Still reeling, Edge reports

TESTSCREEN
The most trustworthy, accurate videogame reviews in the world

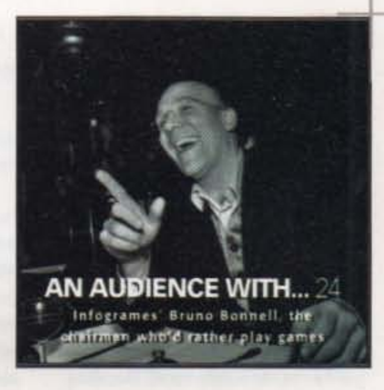




TEKKEN 3 86
Namco's master fighter has returned. Sharper visuals, improved AI and beautifully balanced gameplay combined to deliver a knockout blow...

PRESCREEN 31
Racers lead the pack, with *GT Racing*, *Castrol Honda Superbike* and *Sportscar Supreme GT* out in front





AN AUDIENCE WITH... 24
Infogrames' Bruno Bonnell, the chairman who'd rather play games

VIEWPOINT

EXPRESS YOURSELF IN EDGE – WRITE TO: VIEWPOINT, EDGE, 30 MONMOUTH STREET, BATH, BA1 2BW (email: edge@futurenet.co.uk)

The notion of removing the testscreen mark worries me. Yes, games are emotional to play, but for the average, experienced gamesplayer, spending their hard-earned money on a game is an intense process. Magazine reviews provide a detailed evaluation of games, which the reader absorbs, but can rarely totally recall. Deciding between two or more similar games on the textual summaries alone would require a lot of backtracking and a very good memory.

Basically, the overall mark provides a simple method of short-listing games that the reader is considering adding to their collection. Reviews of short-listed games are then re-read to make clear the minor differences between each title so that a final choice can be made. Alternatively, with no mark given, I can foresee that readers will read the review of each game on their initial list and would then record their own overall impression of the review which would be easy for them to understand. The games with the best overall impression would be short-listed and so on, as above.

I ask you, what purpose would removing the mark serve?

P Powell, via email

Concerning your idea of scrapping the ratings of the games you review, I like the idea a lot, but if you proceed I urge you to take more care when writing the reviews. For example when I read the review of *Castlevania* on the PlayStation, without a rating I would have no idea you liked it so much.

Diskheady, via email

Since the creation of the develop section, **Edge** has consistently pushed the Playstation Net Yaroze as the only amateur console development system. I am sure you are aware of the existence of cartridge back-up devices for the Nintendo 64, which allow cartridge images to be run. These systems are currently far cheaper than the Net Yaroze, at around $220 (USD).

Many times you have said that the days of the bedroom programmer are over, and yet the N64 and one of these systems provides the cheapest way for ambitious programmers to start working on consoles. Professional software development tools are freely available, since the commercial N64 development kits are actually based on GNU software, which may be freely copied and distributed. Although it is difficult, and technical support is non-existent, many 'underground' N64 coders are writing impressive programs and distributing them on the Internet.

Your bias towards the Yaroze is understandable given the industry view of these N64 systems, but it is unfair that you are neglecting to report on the software development taking place using them. I note that you recently ran a Net Yaroze programming competition. While it will be interesting to see the fruits of it, maybe you could also write about the first N64 programming competition, which finished at the end of February. This event, which was organised by the Dextrose web site (http://www.dextrose.com) attracted ten entries, including Game boy and NES emulators, and several games and demos. The prizes on offer ranged from development systems for the N64, to t-shirts for every contender.

I hope that in the future **Edge** will mention these talented coders in Develop, or maybe even publish an article on 'underground' console development and its young rising stars. After all, they are the next generation of programmers.

Garth Elgar, via email



Edge strongly opposes the use of copying devices, such as this Zip disk-based system, but underground programmers are finding good use for it. See the letter from Garth Elgar below

'I hope that in the future **Edge** will publish an article on **'underground' console development** and the young rising stars of it. After all, **they are the next generation of programmers'**

I feel that your response to my letter in E57 has missed the point. You state that console manufacturers would never produce NTSC-only machines (with PAL signal convertors) as they would lose control over territorial lock-out. Why would this be the case? Just because all machines are NTSC shouldn't mean that the regional zoning couldn't be used as it is now.

Steve House, via email

Your point last issue in favour of all machines running NTSC titles, was that many imported games would be available months earlier than their PAL counterparts. It is territorial protection that stops Japanese and American versions of games from operating on European machines. Its continued use – which you now suggest – negates the above benefit of being able to obtain games in Europe sooner than they are now. Additionally, it is often the translation from Japanese that takes time to complete, and in Europe there are, of course, more languages than just English. So simultaneous international releases are unlikely in the foreseeable future. It's a nice idea, nonetheless.

Following on from E57's prescreen intro, I would like to make a couple of points. There are some great 'kiddy' games on the PlayStation, but having young children myself, I know that these titles don't really appeal in the same way as N64 games like *Yoshi's Story*, *Diddy Kong Racing* or *Mario 64* do. With these games in mind some adult gamesplayers are put off by the general cutesy look and feel of them, but these doubters should look beyond the glossy surface and find the true gems of gameplay that generally lurk beneath. The type of thing I'm writing about is often reported in **Edge**'s N64 reviews. I would guess that Nintendo know that if they appeal to kids then the adults will follow – even if the kids are not the ones with the buying power (except maybe in Japan where games culture is different).

Nintendo games are more expensive than the PlayStation's, and this must damage sales among adults who do not know much about lasting appeal. They might figure that the kid would rather save four weeks' pocket money for a

PlayStation game than six weeks' money for an N64 game. Moreover, if an adult is familiar with consoles they're more likely to buy their child the system with the type of games they want to play as well!

I'm a PlayStation owner and I love it to bits, but there are real choices out there to consider. If certain people (myself included) like blood-and-guts games, that's fine, we have plenty of choice with our PlayStation without needing to fling out criticism on every aspect of N64. People don't have to listen to these poisoned minds who look at it only one way for some foolish reason. Gameplaying is meant to be fun, so enjoy it, don't get hung up on it!

Mark McCullough, via email

I am not sure I should be writing what amounts to the most anally retentive e-mail ever, to such a fine magazine, but in your retroview of *Elite* you foolishly state that your initial ship is a Viper. As I'm sure tens of people will want to point out, you start life in a Cobra Mark II – the Viper class is only available to the police. And as for your remark about the BBC micro not having any classic games – bah! Get your grandfather to tell you about a certain game called *Exile*. That was pretty unbelievable, as was *Revs*, Geoff Crammond's first effort. Anyhow, fine issue, much enjoyed.

Robin Jubber, via email

In hindsight, E47's comment about the BBC Micro perhaps doesn't hold that much water either – particularly when **Edge** already paid homage to *Exile* (Amiga version) back in E20...

Comparisons between PC and console games feature in most games magazines, including **Edge**. These correlations are at best futile, and in some cases border on being insulting. The PlayStation comes under most fire from such comparisons, but it seems that rarely is consideration given to the fact that when the machine was launched in 1994, the best PC available was a DX4/100 with 16Mb of RAM. While the PlayStation has remained unchanged, the PC has been bombarded with a plethora of upgrades (although it is still ten times as expensive to buy). **Edge** should review games on an individual piece of hardware and rate them accordingly, not mark them down because some elements looked or sounded better on another format. Your testscreen for Codemaster's *TOCA* is a case in point, and *Quake 64* will suffer the same fate, no doubt.

Jim Gallagher, Buckinghamshire

Edge's focus is on software, not necessarily the machine it is running on. If a title such as *TOCA*, or more poignantly, *Grand Theft Auto*, is more playable on a particular format then that will continue to be reported. The PlayStation has indeed proved to be a well-judged machine in technical terms, as has the Nintendo 64 – which retails in the UK for the same price as a 3Dfx card. Rest assured that the limitations of specific hardware are taken into account when reviewing games, but the presence of other versions must be recognised.

Firstly, I would like to comment on the risible Gameview piece in **E**56, in which Brian Baglow of DMA Design presented a critique of *Crash Bandicoot 2*. I am by no means a vehement supporter of *Crash*; I believe the game is great fun, although it suffers from the ubiquitous flaw of being far too easy. It was pretty entertaining to read Mr Baglow's declaration that the game is 'very harsh' and unfair. I suppose his idea of fair is represented in DMA's *Grand Theft Auto* in which you spend twenty minutes diffusing bombs in vehicles only to have the final car in the mission explode because it got caught up in traffic. Or perhaps the precept of fairness is upheld in the mission in which your huge tanker explodes after a few minor collisions. Additionally, **Edge**'s review of *GTA* (**E**52) is misleading and inappropriate. You've become obsessed with small touches in games to the extent that they can make up for flawed gameplay.

Other testscreens have also been inaccurate. In your review of *GoldenEye* you make much of small touches and fail to note the easy nature of the main game and the flawed nature of some of the levels. Plus, *Diddy Kong Racing* is essentially an average racing game with undemanding, simple physics. It makes few demands on players' reactions but is good fun to play for two days, yet you gave it nine out of ten and raved about its design.

'In your review of *GoldenEye* you make much of small touches and fail to note the easy nature of the main game and the flawed nature of some of the levels'

Rage Racer on the other hand is a real 'gamer's game'. Embellished with excellent physics and tracks, Namco's title is formidable, and yet scored only eight out of ten.

These are only a couple of examples of the inane opinions **Edge** espouses at regular intervals. In your *Fighters Destiny* testscreen you write that beat 'em ups are simple games. I get the impression you're a bit crap at *Tekken 3* – don't tell me, Eddy's your favourite character, right?

James Craig, via email

What? You feel all videogames have the 'ubiquitous flaw' of being too easy to complete, and yet you had difficulties with one of *GTA*'s simplest missions (the tanker). As for *GoldenEye* **Edge** assumes you're talking about completing the single player game on 'agent' – and even this isn't *that* easy. Regarding *Rage Racer*'s 'excellent physics', these now appear weak when juxtaposed with those in *Gran Turismo*.

Perhaps you should experience a few more games before summarising **Edge**'s opinions with such conviction. And conceptually, beat 'em ups *are* simple – but for proof that they are as deep as any other genre in terms of execution, see this issue's testscreen of *Tekken 3 (p86)*.





Super Mario 64DD as featured in **E**57

Excellent April Fool – except the *Mario* image looks squashed and the Princess on the Luigi picture is the wrong way 'round.

Michael Fellows, via email

I must congratulate **Edge** on its pathetic April Fool's gag last issue; *Super Mario 64DD*. Jeez lads, what professional graphics application did you use to create that stunning image? MacPaint? Paintbrush? And the statement that it was an add-on to the original was an over-sized dollop of disbelief on this already rather tasteless desert. Still, at least **Edge** tried.

James Kenny, via email

Cutting Edge

The latest news from the world of interactive entertainment

SONY DOMINATES TOKYO GAME SHOW









Namco's imposing Game Show presence in the form of a massive stand (above), left little doubt about which game the company was there to promote. Punters queued in their hundreds to take part in the two *Tekken* competitions set up

An hour before opening time and the queue stretched round the block (top). Game of the show, *Metal Gear Solid* looked stunning and proved immensely popular (above)

The last week of March saw large crowds gather in and around Tokyo's Makuhari Messe centre (a week after the AOU arcade exhibition). The venue played host to a total of 147,913 attendees over the three days (including the Friday 18,606 press and industry-only turnout), with the Saturday getting the biggest number of visitors (76,212).

Utilising all of the centre's eight halls, the show was very much a PlayStation event, with titles for the 32bit console representing 52.7 per cent (a 9.2 per cent increase over the same figure at the last TGS, in October) of the 470 software titles present from 93 exhibitors. Conversely, the Saturn saw its presence diminish by the level of the PlayStation's rise, to just 17 per cent.

Yet this easily overshadowed the N64's measly 3.6 per cent appearance, which managed a 4.3 per cent drop from its already poor showing last October (with 4.1 per cent, even the Game Boy had more software on show).

Although not as significant as the PlayStation's, the PC market's presence increased from 7.9 to 13.1 per cent although this wasn't enough to detract the Japanese from the console software – nearly all of the booths displaying Windows 95 software were mostly deserted, although a few did stop to look at Square's deft *Final Fantasy VII* conversion.

In terms of genres, the RPG and adventure markets witnessed a significant increase while most others remained stagnant with the exception of action titles, which were less evident than at the last TGS.

The unmatched enthusiasm among Japanese players was again evident, with thousands of them having already made the 40 minute underground journey from the centre of Tokyo









From left: Takara's *Choro Q 64*, complete with four-player mode, *Bomberman War*, the latest instalment from Hudson, the colourful *Trap Gunner* from Atlus and Human's unusual truck racing approach in *Decotora*



Although big and cuddly, not everyone felt completely comfortable about having their picture taken with Crash









The PlayStation dominated the three-day event, with most developers making most of their titles for Sony's machine. Enix's *Bust A Move* dancers were remarkable (top, left)

and lining the exhibition centre's sides in queues four or five deep, hours before the doors were due to open. However, that wasn't the last bit of standing in line they would engage in – with the majority of stands incorporating queuing sections, before the end of the event showgoers would have spent a substantial amount of the day's proceedings neatly lined up, waiting to play the latest titles.

The most popular booth was undoubtedly Namco's. Indeed, the company's structural homage to *Tekken 3* easily dominated the second hall and must have accommodated around 100 players at a time, desperate to try the developer's supreme fighting title, with a further 100 patiently queuing up.

In another hall, Konami probably gave Namco a run for its floor space, with continuously-running *Metal Gear Solid* video footage and a row of PlayStations which allowed players to get to grips with the game's first two levels proving massively (and understandably) popular. In keeping with Japanese efficiency, the first three players in the queue were given a sheet outlining the game's instructions so as to minimise precious playing time being wasted getting to grips with the complex nature of the controls. Providing quality backing to the publisher's astounding espionage romp were *International Superstar Soccer '98* (see p42), *Poy Poy 2*, the bizarre *RakugaKids* and a highly playable N64 baseball game, although *G.A.S.P!! Fighters' NEXTream* was severely disappointing.

Occasionally, as in the case of SquareSoft, crowds were asked to queue just to get into the stand before repeating this procedure for a few minutes' worth of playtesting. Admittedly, with finished versions of *Parasite Eve* and the PlayStation *Final Fantasy V* re-release, as well as an impressive-looking arcade version of *Ergeihz*, getting the public's attention was hardly a difficult procedure, but the visually-impressive *Brave Fencer Musashiden*, the company's latest action-RPG, caused quite a stir among the Japanese gameplaying community.

After the likes of Namco et al, the smaller players grabbed whatever space was left over. SCEI probably managed more than most and whilst there was little in terms of new software on show, at least both *Stolen Song* (a music game in which players must take the role of the guitarist or drummer by hitting a plastic plectrum or right key at the right time) and *Xi* offered an enjoyable alternative to the endless sequels and role-playing titles.

Indeed, few strayed from the proven formula. Taito returned with *Densha de Go 2*, Capcom displayed a booth full of *X-Men* derived beat 'em ups and *Mega Man*-related products. At least Hudson Soft's *b.l.u.e. Legend of Water* (see alphas on p32) provided some hope but there was little else worth seeing except perhaps some of the many shows put on by exhibitors equipped with a stage. One of the most popular of these (among male players, at least) were the *Tekken 3* girls who every hour would dance their way onto Namco's sizeable stand and put up a memorable display.

Impressive too, were Enix's *Bust A Move* crew who, while video sequences of the game played behind them on a giant screen, replicated the moves and character of their specific polygonal counterparts with amazing precision.

Somehow, **Edge** cannot envisage the same happening at the next ECTS.





SCEI's original and instantly playable *Xi* was a particular favourite with the crowd. The two day competition saw a four-year-old get the second highest score. Square operated the strictest queuing code of the show yet was still popular









From left: PlayStation action from Koei's *Destraga*, an interesting *Gran Turismo*-esque approach to the racing world in the form of Genki's *Kattobi Tune*, *Sol Divide* from Atlus and the visually-impressive Koei RPG *Zill O'll*

FURTHER DELAYS DOG NINTENDO







These are currently part of the 64DD's startup sequence, after which Mario allegedly appears to play with the 3D N64 logo

With N64 sales seriously lagging behind the PlayStation's in all territories other than the US, Nintendo of Japan has found itself in the difficult position of having to announce that both *Zelda: Ocarina of Time* and the 64DD add-on device have been delayed. The new *Zelda* title has slipped from its previous April release date to November, which will doubtless leave many gamesplayers in dispair, due to the huge anticipation that has mounted for *Ocarina of Time*.

Other than media-appeasing comments from Nintendo Co. Ltd about design guru Shigeru Miyamoto (of *Mario* fame) wanting to perfect *Zelda*'s gameplay, the actual reasons for the game's postponement are unclear. **Edge** isn't in the habit of speculating, but with the 64DD also promised before the end of '98, the prospect of *Zelda* returning to the disk format that it was originally intended to inhabit, could be a possibility.

Rumours are circulating in Japan that NCL founder Hiroshi Yamauchi and Miyamoto have been involved in a dispute over the game. It is thought that Miyamoto had been in favour of Zelda being a 64DD title throughout its development, only swapping the code to run on cartridge at Yamauchi's insistance. If a reversal were implemented, Nintendo could find its programmers disgruntled at redoing previously undone 64DD code. However, the *Mario* creator has possibly convinced his boss that both *Zelda* and the 64DD add-on need the game to utilise the disk format.

Although frustrating, such a change of direction within NCL is conceivable: the 64DD needs a killer app in order to sell, while *Zelda* would benefit from an increase in available storage space. While the creative *Mario Artist* titles (see E54) are welcome additions to the gaming world they would be unlikely to make the 64DD a must-have accessory in Western markets. If Yamauchi is serious about fulfilling his promise to retire once the 64DD is established, then a strong software line-up for the periphal will be a prerequisite for him drawing a pension.

64DD Unravelled

Continuing the Nintendo tradition that the Japan-only Famicom Disk System established in 1986, the 64DD is an add-on storage device for Nintendo's N64 console. Using bespoke magneto-optical disks, similar to Iomega's successful Zip format, the DD can read up to 64Mb of data. Unlike the 650Mb CD-ROMs used by the PlayStation, around half of the space can be used as re-writeable storage. This recordable data system has the potential to open-up console game design to exciting new areas, though as with every piece of hardware, the quality of titles is dependent on developers taking advantage of it.







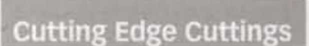








In an effort to appease frustrated fans, Nintendo has released new shots of the now postponed *Zelda: Ocarina of Time*. Most impressive – and intruiging – is the level set inside the belly of a beast (centre, top)



Cutting Edge Cuttings

GT PAL WORRIES

After skimming through an early European version of *Gran Turismo*, **Edge** can report that the conversion from NTSC has been well-handled – technically. Sadly, the now speeded-up arcade mode is currently far too fast, ruining the game's realistic feel. Expect a final update next issue.

INDEPENDENCE DAY

Polys Entertainment, the SCEI team responsible for creating *Gran Turismo*, has been granted full independent status. Now known as Polyphony Digital Entertainment, the group is headed by Akira Sato, with GT producer Kazunori Yamauchi now executive vice president.

WHEN IN ROME...

Following its convention in Rome to encourage European N64 development, Nintendo has announced the restructuring of its European operation. All EC distributors, including THE Games in the UK, will now report to the German based NoE company, rather than NCL in Japan.

KATANA: SEGA SPECULATION SPREADS





Sega will make a major announcement on Katana at this year's E3 show in Atlanta, revealing final hardware specs and its launch pricing

Daytona 2

In a tiny arcade in Shinjuku, Japan, the long-awaited *Daytona 2* has made an appearance. Edge's Tokyo correspondent describes the game as 'astonishing', adding that it easily surpasses *Sega Rally 2*. Up to 40 vehicles are shown onscreen at once, and like the original *Daytona*, it displays realtime racing damage, with details like dented doors and crumpled bonnets. The famous rolling starts have been retained, while the tracks are redolent of *Scud Race*, based around amusement parks, waterfalls and futuristic cities.

***Daytona 2* runs on the newly improved Model 3 board. One of the most persistent of recent Katana rumours is that it will only launch with the very latest arcade games, rather than older titles like *Virtua Fighter 3* or *Scud Race*. The aim is to give the machine a contemporary allure. If this strategy is adopted then *Daytona 2* is very likely to be among the launch titles.**

Sega is set to replace its ageing Model 3 arcade board with a solution based on Videologic's PowerVR 3D technology, according to the latest rumours from Japan.

Allegedly shifting ten million polygons per second, the new arcade board, codenamed Naomi, is several times more powerful than the existing Model 3 board. Four PowerVR 3D chips are said to be at the heart of the system, possibly teamed with multiple CPUs, which would be consistent with the system's alleged performance.

With Sega's Katana console also employing Videologic chipsets, the tantalising prospect of a unified front in both the home and arcade seems a real possibility. Videologic has long been working on both arcade and console implementations of its 3D silicon, but it's been reluctant to provide firm details on anything other than its PowerVR Second Generation hardware. Previously, some had linked Videologic's technology with Namco, which is yet to update its ageing System 22 board.

Meanwhile, with the E3 show rapidly approaching, the Katana rumour-mill is going into overdrive. In the light of Katana's non-appearance at the Tokyo Game Show and Sega booking massive amounts of floorspace at E3, the company now seems certain to demonstrate the console at the May show, at least behind closed doors. Playable games are by no means impossible, with numerous insiders reportedly witnessing games in a fairly advanced state in Japan. Capcom, Konami and Namco are reported to have Katana titles well into development.

Sources in Europe and the US have revealed that both continents' sales operations have earmarked some $100 million for a 1999 marketing campaign. After the Saturn's lacklustre summer launch, Katana would possibly arrive as late as autumn, meaning another eighteen months before Sega fans outside of Japan can finally replace their Saturns. The console is expected to debut in Japan this autumn.

One of the most intriguing new Katana developments is talk of an LCD screen built into the joypads. This might just provide data readouts from the memory cart – if Sega was to employ slot-in memory carts like Nintendo – but it could also have more interesting uses. One source suggested the LCD screens would be fully programmable. This would enable them to be used as gameplay enhancements, maybe permitting players to secretly select moves in sports or strategy games or keep a player's remaining health secret in fighting games.

Equally intriguing is the widespread belief that Katana will include a modem. This will enable multiplayer gaming (particularly appealing to American gamers) and might also offer other capabilities like Web browsing. If teamed with some sort of flash RAM, the system would also enable games to be expanded by downloading new patches – an ability touted as one of Nintendo's 64DD unique strengths.

One thing is certain. Katana *will* employ the WinCE operating system. This has pleased several developers who are already working with the development kits. They suggest it will make porting games from the PC relatively easy. It could also mean that a modem *would* be provided, based around existing PC hardware.

With the pick of both PC and Naomi-powered arcade games, Katana should muster up a better launch range than Saturn, regardless of the system's eventual specifications. E



Although Sega remains tight-lipped about launch titles, a *Sonic* game would give Katana immediate appeal among hardcore company fans

'SOUTH PARK' FOR N64

Acclaim has acquired the license for the outrageous cartoon 'South Park', and Taito's *Bust A Move 2*, for the N64. How the company will convert 'South Park's – very – adult (and incredibly funny) humour to the N64 is a mystery, although it has until 1999 to work it out.

APPLE DROPS OFF NEWTON

After a few years of poorly marketing its innovative Newton OS palmtop, Apple has now ceased supporting the system for good. However, the last Newton device to be produced, the curvaceous eMate laptop, is to play host to Apple's alternative to Windows CE; Mac OS Lite.

TIGER STRIPPED

The manufacturer of the Game.com, Tiger, has been purchased by Hasbro Interactive. Following the sale, a host of new titles have been confirmed for the Game Boy rival, including Konami's *Castlevania* and Capcom's *Resident Evil 2*. Further announcements are expected at E3.

CUT PRICE KATANA?

Just prior to **Edge** going to press, it was reported on the Internet that Sega is hoping to release its new Katana console in Japan for under £180. Sega will use the device's earlier Japanese release to bring down its manufacturing costs, before dropping the price for its US launch.

continued

GAMES DEVELOPER UK '98 COMPETITION

Cash, careers and computer equipment are all up for grabs

Competition Categories

Best Game
An award for the best completed piece of game software. This will be an entire game or, at the very least, a segment or level which will stand alone and demonstrate all the features of a complete game.

Best Artwork and Animation
This must be interactive, computer-generated and might be expected to form part of a computer game.

Best Game Design
This will include the following elements: Overall Concept, in 300 words; Gameplay as a walk-through of a level; Graphics, a description of the visual appearance of the characters and settings; Other areas, such as audio ideas, technology required and description of target audience.

Best Audio
Music or sound effects which demonstrate relevance to a new or existing computer game.

Best Game Utility
New software or technique which aids the development of a computer game.

Best Overall Award
Best UK Game Developer '98. This may cover any or all of the above areas and will be at the discretion of the judges.

A nationwide competition has just been launched to find Britain's hottest new game designing talent.

The competition, backed by an alliance of leading Scottish games developers and the Scottish Enterprise Commission, offers £10,000 in prize money. More importantly, it will bring the winners into contact with some of Britain's hottest studios, including DMA Design and VIS Interactive.

This could well lead to jobs in the industry, according to VIS' **Chris van der Kuyl**. 'This is the primary reason for organising this competition,' he told **Edge,** adding jokingly, 'Obviously, the very best entrants will 'win' a job at VIS. The others will end up at DMA or something.'

There are five categories: Best Game, Best Artwork and Animation, Best Game Design, Best Audio and Best Game Utility. Each carries a prize of £1,000. There is also a Best Overall Award, which will go to the very best entrant in any of the categories. This grand prize is worth £5,000. In addition, computing equipment will be donated to colleges or schools associated with winning entries.

'This is a chance for anyone who thinks they have a good idea to take it forward,' says DMA Design's **David Jones**. 'The people who will enter this competition will be like me ten years ago, before I had realised I could actually make a career out of my hobby.'

Although the competition originated in Scotland, it's open to anyone in the British Isles. The five games companies behind the competition (DMA Design, VIS Interactive, Inner Workings, Red Lemon Studios and Visual Sciences) are all members of the loosely-affiliated Scottish Games Alliance, and see the competition more as an issue of ideology than nationality.

'The Scottish Games Alliance is a unique body run in a unique way,' says van der Kuyl. 'Most of us come from similar 'bedroom programmer' backgrounds' – back then you worked on most facets of the game yourself. These days, it's very difficult for someone with great ideas to get a job in the games industry, simply because it's now a very big and expensive business. While recognising that this has to be the way forward if we are to become an accepted form of mainstream entertainment, we'd like to create a few 'names' once again'.

In the past, similar competitions have turned up some great talent. Andy Davidson originally submitted *Worms* to an 'Amiga Format' competition, later developing the game with Team 17 for Microprose and releasing it to commercial success. Another 'Amiga Format' competition winner, Mike Diskett, went to work at Bullfrog, and recently co-founded his own development studio, Mucky Foot (which **Edge** visits on p44).

Chris van der Kuyl says he would have loved to enter such a competition when he was a student. 'That way I would never have been forced to spend my formative years producing multimedia applications,' he says. 'Oh, happy days. I would have spent my winnings back then on a wooden hoop to roll down the pavement. Today, I'd buy a Yaroze.'

Van der Kuyl stresses that those without Yaroze's or other equipment should still consider entering. 'We don't expect hundreds of thousands of entries – purely because this is a very tough competition that requires vast specialist knowledge. However, I wouldn't want people to be put off because they don't have programming facilities at home or college. All entries are welcome, be they examples of individual programming or just potentially great game ideas.'

● *The Developer '98 competition is being run via the Internet. For more details, visit the competition homepage at www.gduk.co.uk.* ***Edge*** *will be looking at the Scottish games industry in more detail next month. For more on infiltrating the business, see Gaming Graduates on p66.*



DMA's David Jones is one of the brains behind the national Games Developer '98 competition

MIYAMOTO JUST SAYS NO

Shigeru Miyamoto has declined to develop a *Star Fox 64* sequel. Although rumours have long existed of a possible sequel involving Fox Mcloud and friends, these have been quashed by Nintendo's recent anouncement that Miyamoto believes he has achieved everything he wanted with the N64 version.

RESIDENTIAL EVIL

Capcom's *Resident Evil 2* has sold in excess of three million units worldwide after just six weeks of its release. Sales in Japan are currently reaching the two million mark with the title reclimbing the charts and claiming fifth place, while US figures have reached a million and are expected to double soon.

TAKE 2 MUSCLES IN

In a surprise move, Take 2 has acquired BMG Interactive. The deal gives BMG a 16 per cent stake in Take 2 while the latter takes control of BMG's European offices. However, unhappy with the takeover, long time BMG partner Crystal Dynamics has refused to sign its forthcoming titles to the US publisher.

MILLIONS AND BILLIONS

According to Sony, as a result of remarkable sales during 1997 and a particularly strong start to this year, the US PlayStation market recently reached the ten million mark. On a more global scale, Sony's likely net worldwide operating figures are expected to reach $3.84 billion (£2.4 billion) for the current fiscal year.

continued

FAST FLYER: VOODOO2

The benchmark 3D board just got better. But at what cost?

The next word in 3D technology from 3Dfx, Voodoo2, has hit the shelves amid happy cheers and confused shrugs. With the powerful reputation of Voodoo Graphics behind it, many PC gamers welcome the chipset for both the speed-burst it gives existing games, and the new level of performance it lays before games developers. Others aren't so sure.

The Voodoo2 chipset indeed packs a punch. In tests conducted on a reference board supplied by 3Dfx (the same card that has been distributed to games developers) **Edge** found Voodoo2 easily capable of outperforming all currently available dedicated 3D graphics solutions. Meanwhile, the three manufacturers to sell identical Voodoo2-based boards in the UK – Diamond Multimedia, Orchid Micronics and Creative Labs – are already reporting shortages.

Voodoo2 may be fast, but it's leaving a number of issues bobbing in its wake. The boards from the three suppliers may be the same, but Voodoo2 does not treat all gamers equally. Those with 133MHz Pentium machines will see a relatively small framerate increase, while PII owners can expect *Quake 2* to run at 60fps.



Quake 2 **is the quintessential game for Voodoo2 customers**



Anyone opting for Orchid's Righteous 3D 2 will get a copy of the excellent *Battlezone* and *Jedi Knight* (OEM version) in the bundle

PentiumII users will soon have other options, as the competing 3D companies like VideoLogic, Intel and NVIDIA bring out cards designed for Intel's Advanced Graphics Port (AGP). These combine 2D, 3D acceleration and video processing while Voodoo2 remains 3D-only, working through a PCI bus in conjunction with a 2D adaptor. 3Dfx has stated that Voodoo2 will not appear on combined 2D/3D cards, and being PCI it doesn't take full advantage of the AGP pipeline architecture.

Some think Voodoo2 has come too soon. Voodoo Graphics hasn't been pushed to its absolute limits by PC game developers, yet the replacement technology is already here. **Edge** put the point to 3Dfx's VP of R&D, **Scott Sellers**, who countered that in order to stay competitive in the PC arena the company must release products roughly every six months. Sellers also stressed that most 3D games coming this year will have been made primarily for Voodoo1. 'It takes a solid year for a developer to actually take a piece of technology and see software that really takes advantage of it. 1998 will largely see games that were designed with Voodoo Graphics in mind,' he said.

Gamers therefore have a while to decide whether or not to graduate to Voodoo2. Alternatively, they could wait for 3Dfx's hitherto secret Banshee technology, which Sellers confirmed would be a chipset designed for AGP. 'You'll see Banshee being the best of breed VGA, the best of breed 2D, and hopefully the best of breed 3D, too,' he said. Expect Banshee this summer.

In the meantime, the 3D Blaster V2 is available from Creative Labs for £180 (8Mb) or £230 (12Mb). Diamond Multimedia offers the Monster 3D 2 at £180 (8Mb only), while Orchid sells the 8Mb Righteous 3D 2 for £200 in a bundle including *Incoming*, *Jedi Knight*, *Battlezone* and *G-Police*.

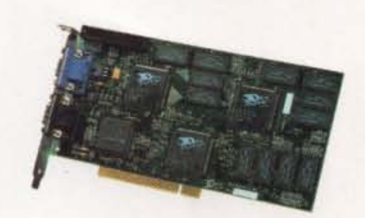
EDGE test results

	Quake 2 800x600	Quake 2 640x480	Forsaken 640x480
Pentium P166	34fps	36.5fps	48fps
Pentium PII266	49fps	53.5fps	59fps

Future FX

Scott Sellers says the real challenge of 3D is just coming. To create the current crop of accelerators, companies have so far taken existing mathematical routines and wired them up in silicon. In years to come, the challenge will be to come up with totally new routines – or at least find ways to implement existing Workstation technologies in realtime.

Sellers said 3Dfx was looking at true realtime anti-aliasing (as opposed to super-sampling), lighting and adding more special effects. Lighting is particularly interesting. Today, single light-sources are used, whereas in real-life everything is a potential source of light, due to reflections. The only way of doing this today is ray-tracing – far too laborious to handle in real-time with current technology.



In the States 3Dfx reports that around 30 per cent of customers buy two Voodoo boards to use together in a single PC, which gives framerates up to 90fps – beyond most monitors' refresh rates

INTEL BAILS OUT OF 3DFX

Despite having recently introduced its own 3D accelerator chip, the I740, Intel insists the recent sale of its interest in 3Dfx is unrelated. The chip manufacturer claims that its initial investment in 3Dfx stemmed from a desire to help grow the 3D accelerator market, something it has successfully achieved.

SENSIBLE OFFERS PLEASE

UK codeshop Sensible Software (*Cannon Fodder*, *Sensible Soccer*), is up for sale. Over its long history, the Saffron Walden-based outfit has enjoyed relationships with several major industry players. The market's leniency towards corporate organisations has been blamed for the move.

ACTIVISION GETS ACTIVE

Although distributed by Sony in Japan, the US and European publishing rights for *Tenchu* have been picked up by Activision. The company has also announced it will publish a remake of Atari's 1979 *Asteroids* title. Developed by Quickdraw Developments Ltd, the action occurs within a 3D environment.

SHOCKING NEWS

After months of uncertainty, UK PS owners finally have the opportunity to get their hands on Sony's Dual Shock joypad. The pad will be launched to coincide with the PAL release of *Gran Turismo*, and owners of Japanese versions of the pad should be pleased to learn they're compatible with EU software.

(out there)

REPORTAGE FROM THE PERIPHERY OF THE VIDEOGAMES INDUSTRY



Chanel über-babe Liz Hurley is currently favoured for the role of Lara Croft...

Lara lives

First there was the game. Then there was another game. And there's sure to be another game. But before then, there'll be the movie.

After months of negotiation, Lara Croft's cinema debut is finally confirmed. After *Tomb Raider 2*'s consistent chart performance, Eidos has reached an agreement with Paramount Pictures to make the 'Tomb Raider' movie. Two producers have already been signed.

'We are thrilled by the possibilities of this film project,' said **Joe Goldwyn**, president of Paramount Motion Pictures. 'We are confident that the pairing of Eidos, a leading company in the cutting-edge world of video games, and producers Lawrence Gordon and Lloyd Levin, will result in a ground-breaking live-action movie with worldwide appeal.'

Gordon and Levin have a reasonably impressive track record. Between them the pair have produced over thirty films, most recently 'Event Horizon' and 'Boogie Nights'.

Anyone who's seen Robert Altman's 'The Player' will know the most important part of selling a film is the 'pitch' – a brief summary which perfectly sums the film up. **Edge** reckons 'Indiana Jones chases Liz Hurley in Khaki Shorts' should do it. But given its producers output, perhaps 'Sandra Bullock meets Marky Mark Wahlberg in a Trappist monestry' is a more probable outcome.



...in the forthcoming *Tomb Raider* movie from the producers of 'Boogie Nights'





...**Edge** still reckons Sandra Bullock would make a better job of it...

Pay check

Does it pay to be a suit or a sci-fi T-shirt in the computer games industry? Surpisingly, a new report has concluded that the rewards are roughly equal.

The survey was conducted by Answers Recruitment for the games trade newspaper CTW. It reveals that a sales or PR executive can look to earn about £16,000 when starting out in the industry – about the same amount as a junior programmer or artist.

After a couple of successful years, everyone's earning much more. National sales managers, product managers and PR managers as well as programmers and producers can all bring in around £25,000. That's slightly less than experienced artists, who at the peak of their profession can expect to collect £30,000.

Lead programmers can achieve salaries of about £35,000, rising to £50,000 for the nation's very best programmers. The same salary, roughly, as that boasted about by UK sales directors at their local 'nitespots'. One difference comes in the form of benefits, with 'suits' far more likely to get perks like cars. On the other hand, most studios pay developers royalties these days, which make the actual business of producing games more lucrative – provided they're making hits. Guru programmers might also consider the freedom to grow a beard an important benefit.

But to climb to the very top, the 'Star Wars' paraphenalia and the Dilbert posters must go. A short back and sides, an Armani suit, a Dolce & Gabanna briefcase and the title of UK managing director commands up to £100,000 a year, not counting the hefty bonuses due if the grunts strike gold. Any programmer who wants to earn that through clever coding is going to have to look towards the west coast of America. Or the 'Hacker's Handbook'...





Red Lotus: yet another giant leap for videogame character design…

Lotus design

In light of the enormous exposure Core Design's Lara Croft character has sustained, it seems only fair that the latest digital damsel to be pushed by Eidos Interactive should be subject to similar scrutiny. Red Lotus, the female warrior character in *Deathtrap Dungeon* (testscreened in **E**57) is being used as a marketing tool in the same way as Ms Croft promoted *Tomb Raider*. Eidos has taken the indentical step of enrolling a real-life, curvaceous counterpart for Red Lotus, non other than cover girl Kelly Brook (below).

Unfortunately for Eidos, its not-very-cunning plan is lacking in a couple of key areas. Other than *Deathtrap Dungeon*'s gameplay falling noticeably short of Core's title, the design of Lotus herself is woefully amateurish. Lotus' misshapen figure and distorted facial detail are bad enough to warrant derision, while her ultra skimpy costume is just plain tack. Lara Croft may have paved the way for such half-hearted imitators, but at least she had integrity, man…



EDGE SINGLES OUT THE WINNERS AND LOSERS IN THE INTERMINABLE BATTLE FOR VIDEOGAME CRED

GAME ON

Akihabara, Tokyo for being the videogaming equivalent of Mecca. Makes Tandy in the local precinct look a bit sad…

Konami's ***Metal Gear Solid***. After playing the game at the Tokyo Game show, **Edge** can confidently say: Oh. My. God.

The **fake parking tickets** sent out to promote *Aero Gauge*. Nice promotion, shame about the game – not even worth rounding-up.

Capcom, for announcing its release of the original arcade code of *Ghosts 'n' Goblins, Ghouls 'n' Ghosts, 1942* and *1943* for the PlayStation. Retrogaming just keeps on getting better.

UK PlayStation release dates for finally starting to keep pace with their NTSC counterparts. *Resident Evil 2* is out on April 30, *Gran Turismo* May 3 and *Tekken 3* May 30.

The increasing number of **dodgy PlayStation releases**, that are rushed onto shelves prior to reviews appearing. Anyone for *Masters of Teras Kasi, Rascal, or VR Powerboat Racing*? Thought not.

Midway's version of arcade ***Gauntlet*** on the *Atari Greatest Hits 2* compilation, for not supporting the PlayStation multitap. Sort it out.

The **European Journo** who, after being told that Namco's *Tekken 3* team hadn't had a holiday since work started on the arcade version two years ago, asked: 'What can you tell us about *Tekken 4*?'

Sony's initial alterations to the PAL version of ***Gran Turismo***. Who? What? Why? Where? and How? all spring immediately to mind.

Console mags packed with scantily-clad (and frankly, dodgy-looking) babes. If that's what you're after, buy a copy of 'Penthouse' – it's cheaper, sexier (and probably has better games coverage).

GAME OVER

NUMEDIA

A MEETING POINT FOR MEDIA CAPITALISING ON THE DIGITAL ENTERTAINMENT REVOLUTION

GADGETS



Nokia Game Phone

It's a truth not universally acknowledged that only about 50% of mobile phone owners actually need the things – the rest buy them because they love technology and want something to play with. It was, of course, only a matter of time before a phone company actually realised this fact and exploited it. Hence the Nokia 6110 GSM, which comes with a bevvy of diverse extra features and three simple games (the titles 'Snake' 'Memory' and 'Logic' may give some idea of their rather modest stature) that can be played alone or against another 6110 owner via infra-red link.

If the games are of dubious entertainment value, some of the Nokia's other features will prove far more useful. For stressed-out execs obsessed with managing incoming calls, for example, the 6110 gives a different ringing tone to different categories of numbers stored in the address book (so it is possible to discern the importance of the call by its tone). It also offers a 'calender' function where important dates can be assigned an alarm. If all this weren't enough, the casing is a glamorous, shiny blue which is more suited to gracing a slinky dress. Whether this is a recommendation or not is open to interpretation.

£80-120
Nokia
Tel: 01480 434343
Out now



Sharp SRS Plus Television Range

Few people are happy with a TV set and a couple of speakers these days, but even fewer are prepared to invest in a true Dolby Digital set-up requiring full bandwidth rear speakers. As a result, manufacturers everywhere are desperately creating cheap 'home cinema' options which attempt to replicate true surround sound, with just the standard side-speakers and perhaps a subwoofer.

Sharp's latest range – the 51, 59 and 66 DSSOSH TVs – gets closer than most to providing a cheap and effective home cinema experience. The company's Sound Retrieval System provides a believable '3D' sound, and the central subwoofer (only available in the two larger sets) beefs up the bass.

Picture quality is also modestly impressive and the auto tune feature makes each set easy to get up and running. Not the most glamorous TVs in history, but for users only just starting out on the road to audio visual nirvana, they're a welcome introduction.

prices from £340
Sharp
Tel: 0800 262958
Out now

MUSIC



Various artists
Funkungfusion
(Ninja Tune)

If there is anyone out there who still believes Ninja Tune is just an outlet for Coldcut, this mammoth double CD will put them in their place. Featuring over 20 artists, Funkungfusion is a mad, fresh and invigorating taster for one of the finest independent dance labels of the last decade. Slipping comfortably from the spot-on old skool electro of Chocolate Weasel's 'Music for Body Lockers', to St Etienne-esque dreamy softbeats ('Slipped Disc') and cool, smoky jazz ('River of Smack'), the compilation rivals Rebirth 7 for its sheer tripped-out insouciance. Buy it for the samples, if nothing else. Magnificent.



Cocktails
Various Artists
Recordings of Substance

A drum'n'bass showcase from just the one label ought to be a pretty one-sided affair, but with artists as diverse as mood merchants Icarus and mad glam salesman James Hardway, 'Cocktails' just about keeps fizzing away right through the sixty-seven minute running time. The aforementioned Hardway turns in some reliably 70s-tinged funk on 'Theo Steps In' and 'Illustrated Man', and 'The Odd Toot' provides some equally playful grooves to offset the weightier sounds from Nostramus and ex-Blame partner Justice.

Always filmic, yet never formulaic, 'Cocktails' is an ideal peek at the state of the drum'n'bass art.





Philips Design Line Television

Although TV manufacturers invest a great deal of time and effort into refining picture and sound quality, they remain stubbornly conservative in the field of case design. Sleek black plastic is the current vogue, and will no doubt remain in favour for many years, but Philips has decided to buck the trend with its new set, the 32PW9523C. While a 'powder' green TV (with matching cabinet) may not sound like the most attractive proposition, it's striking – if not to everyone's taste.

What's more impressive is that Philips hasn't merely dropped an old chassis into a new case. Boasting Philips' Crystal Clear 3 suite of picture enhancement technologies and a 100Hz, 16:9 display, it also comes complete with the company's modestly named 'Incredible Surround' system which mimics a multi-speaker true surround set-up.

Impressive though its credentials are, **Edge** wonders how many readers really hanker for a green TV...

£2000 (with matching video)
Philips
Tel: 0181 689 4444
Out now



Sharp HC4500 Palmtop

Technology is all about making things quicker and smaller. 'Nicer to look at' is important, but – in the adrenaline rush that is business in the nineties – quicker and smaller usually take prescience.

This principle has pushed the development of palmtop PCs into fast forward since the first units crept onto the shelves 18 months ago. Their diminutive size enables true portability – unlike, say, a laptop – yet they still have most of the functionality of a desktop PC.

Sharp has taken this a couple of steps further with the HC45000. Not only does this model feature a 256 colour screen and an impressive 16Mb RAM, it also comes equipped with a tiny digital camera that slots onto the side and takes 640x480 pictures.

Its a dream come true for journalists, who can then send these pictures via email with their text. It may also prove popular with voyeurs (**Edge** really doesn't need to spell out how a tiny camera attached to the side of an innocent-looking portable computer could aid this type of individual). While the quality of the snapshots may not be up to much, the HC4500 is certainly an impressive step in a fascinating new 'quicker and smaller' direction.

Sharp £800
Tel: 0800 262958
Out now



Nu Skool Breakz
Various Artists
Kickin

The resurgence of the breakbeat is one of the best things to happen to the dance scene in ages, providing a welcome respite from those tired house patterns and at the same time providing a welcome link to the golden days of rave.

It's that fresh, loose energy that Pilgrem has captured here, using nothing more than a pair of decks to seamlessly mix up some storming tracks. The names may be unfamiliar to most, but that's immaterial when the music is of this calibre, every single one of the twelve cuts possessing as much of an ear for melody as an eye for technology. The sound of genres colliding has rarely been so good.



Kamikaze
Icarus
Recordings of Substance

When a new drum'n'bass duo cite Frank Zappa and Ornette Coleman as influences you just know they aren't about to go pop. So it goes with Icarus – the beautifully crafted 'Agua Para Mis Abuelos' hints at a lighter, more organic side, but its a grittier, urban noise that dominates on 'Kamikaze', dissonant samples and clattering beats ensuring things never approach easy-listening territory. Unlike the Aphex Twin, Icarus don't challenge in a playful way. They just challenge; and while that ultimately makes Kamikaze a more mature endeavour, it's hard not to wish for just a little light at the end of the tunnel.

LASERDISC

The Lost World

Although unlikely to be remembered as one of the great cinematic masterpieces of all time, Spielberg's collection of predictable set-pieces makes perfect home entertainment.

The plot is unlikely to win any awards: four years on from his original disastrous dinosaur-breeding venture, John Hammond (a clearly desperate-for-cash Richard Attenborough) reveals that a whole set of genetically replicated creatures has been stomping freely all over a second island all along and the scene is set for a second catastrophe-filled episode.

That the film lacks substance is not in doubt. It is, however, a marvellously entertaining spectacle. The quality of the CGI sequences is again ground-breaking – all of the dinosaurs look even more convincing than they did when confined within the electrified fences of the first Jurassic Park. Just as effective, though not so groundbreaking, is the DTS sound, though this is best heard on a full surround sound rig.

The quality of the reproduction serves to enhance to the effect. This is where the LaserDisc format excels, with a magnificently fine and detailed 1.85:1 framed image incorporating superb colour reproduction. The sound complements the visuals with a wonderfully dynamic stage (including a ridiculously deep bass extension) and likely to leave anyone who has only experienced the compressed VHS soundtrack truly in awe of this format.



Directed by Steven Spielberg
Pioneer/Universal
£30
Out now

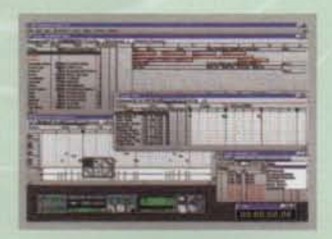
CD-ROM

Music Studio 3.0

Purveyors of a wide range of music authoring software, Magix, has seen fit to expand the talents of its budget offering. Music Studio 3.0 is split into two parts – a 128-track MIDI sequencer and an 8-track hard disk audio recorder – but it's the MIDI sequencer that forms its most compelling attraction. It is both powerful and beguilingly easy to use, as well as being stacked with useful tools such as a virtual drum machine and what Magix calls a 'Piano Roll Editor': the musical note equivalent of a drum machine.

There's also enough fine control on offer in the MIDI sequencer to allow the creation of professional-quality tracks – including the concept of parent and child instrument patterns and superbly easy pitch-bend editing – and some handy high-end features in the audio recorder, too, such as a quantiser which can be used to clean up any hamfistedness which might creep into the user's MIDI keyboard playing. It's also possible to fiddle around with musical scores, should you so wish. And the software also includes a pretty decent mixer.

In other words, it's the business – while it provides a graphic illustration of why the musical community is so taken by MIDI, it won't put much of a dent in the wallet (particularly for those who already own a MIDI keyboard). Respect to Magix for that. At the price, Music Studio 3.0 is a must-have for anyone with ambitions to take the music world by storm.



Published by Magix
Developed in-house
£40
Out now (PC)

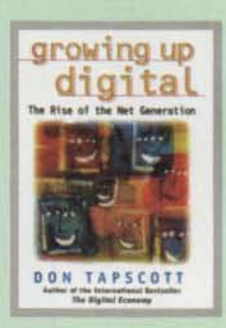
BOOKS

Growing up Digital

What scares parents most about the Internet – the fact that they don't understand it, or the fact that their children do? Indeed the Net Generation – the post-baby boomers who take technology for granted – now use PCs and web browsers in their schools, at home and in business, while their elders look on bewildered. This is the first generation to have a truly global perspective. A generation which will make the next century its own.

So how should such an important social shift be discussed? Luckily Tapscott manages to avoid both the hyperbole of popular science and the stilted academic tone of a textbook, instead presenting the facts with the aid of over 300 net-gen interviews. Through debate with them, he dispels all the popular myths about the Internet and its effects on young people: for example, the tired idea that the WWW is addictive and filled with pornography is emphatically refuted.

Timely and eminently readable, this is a tour de force which should be read by parents, teachers and policy makers alike. 8-year-old Christoper Housen states, 'to me, growing up digital means having fun while you're learning'. While a commendable ideology, **Edge** wonders if Christopher is simply chuffed that his parents haven't twigged that he can run *GTA* behind Netscape...



Don Tapscott
Publisher: McGraw Hill
ISBN: 0-07-063361-4
Price: £17

Disco 2000

Not long after her original 'chemical generation' anthology, 'Disco Biscuits', Sarah Champion is back with another selection of shadowy tales penned by a broad selection of young visionary wordsmiths. As the book's title suggests, the subject matter here is New Year's Eve 1999, but don't expect dream cruises, parties on Bondi beach or a night in front of Angus Deayton's millennial knees up – this is dark territory taking in everything from religious cults and fetish queens, to netheads and, of course, drug crazed psychos. But what can one expect from a book which puts goth horror monarch Poppy Z Brite beside dystopian futurist Neal Stephenson and Ex-KLF frontman Bill Drummond?

Beyond the narcotic histrionics however, lie some astute themes. Indeed, the popular idea that 2000AD will represent a huge shift in humanity's perception of the world is often explored in great depth here. Perhaps Douglas Coupland and Douglas Rushkoff have the best grasp of what this mystical time means – their writing always has a relevant social context, ideally suited to the subject. However, as a vehicle for short fiction in general, the millennium proves a perfect vehicle. Everyone is thinking about it, everyone has their own ideas about it, but few will have have considered these bizarre scenarios. Read them and weep for the future. Or, at least, what's left of it.



Edited by Sarah Champion
Publisher: Hodder Headline
ISBN: 0-340-70771-2
Price: £7

MUSIC



Various
Funk Electric
(Hydrogen Dukebox)

Based around the label's electro-flavoured club night of the same name, this goodie bag of all things electronically funky is further proof that the best current music is that with an appreciation of the origins of rave. Opener 'Mercedes Bends' from Chamber illustrates the point perfectly, before giving way to Aux88's respectable remix of Laurent Garnier's seminal 'Crispy Bacon' and other 303-spiked treats. These include old hand Lol Hammond, appearing in both Girl Eats Boy and Drum Club guises. Only the overriding minimalism prevents it from impressing quite as much as 'New Skool Breakz'.



The Rebirth of Cool: Seven
Various Artists
Island

Island Records' seventh foray into laid-back dance seems even more mellow than usual, perhaps in an effort to counter the abundance of breakbeat compilations currently crowding record shops. What you get, then, is two CDs worth of sultry, often experimental cuts, taking in the polished funk-jazz of Blaze's 'My Beat', the latin flavours of the Tala Quintet and a particularly chilled outing for Roni Size in the shape of 'Ballet Dance'. Highlights though are 'Contrazoom' a weird orchestral jazz work-out and Fused Up's dance reworking of the Coltrane classic, 'Impressions'. Even the packaging is chic.



netview

EDGE'S EXAMINATION OF THE INTERNET AND ONLINE GAMING SCENE





Players can customise their character's physical appearance

Asheron's Call

Bill Gates has scaled back his ambition to own the world. Instead, he's creating his own.

Asheron's Call, which is being developed for Microsoft by Turbine Games, is a persistent online world in the mould of *Ultima Online* and *Meridian 59*. While those games have their had problems (culminating in the lawsuit filed against Electronic Arts/Origin) they've also shown that graphical MUDs can work and turn in a profit.

One of the biggest criticisms of these online games has been the difficulties faced by new players. Hunting for beetles and rabbits while avoiding murder by experienced players isn't much fun. *Asheron's Call* will tackle this with a 'big brother' system, in which new players will swear allegiance to older players in return for protection.

There are no set rules – players offer their services to an older player and barter for what they get in return. This principle of strong incentives to co-operate or compete is Turbine Game's guiding light. As in Ultima Online, players are encouraged to specialize and work together, although there's no talk of carpenters or butchers as in Orgin's world.

Asheron's Call also attempts to keep knowledge valuable. When someone makes a discovery in an online game, it is usually broadcast. That's one reason why it's so hard to keep a game fresh – there are few secrets. Turbine Games is addressing this with an appeal to another base instinct: greed. Magic provides a good example of how this will work. All spells have a power rating, and whenever a player casts a spell, its power is weakend for everyone. If a new spell is discovered, it's logical to keep quiet.



Graphically, *Asheron's Call*'s first- and third-person perspectives resemble those of 3DO's *Meridian 59*

Perhaps the best reason to look out for *Asheron's Call* is its association with Microsoft; bad games can be brushed under the carpet but the stench of poor online games tends to linger. The *Ultima Online* farrago should provide a compelling reason for Microsoft to get it right first time.

Asheron's Call is now in Beta test. A demo version is available from **www.turbinegames.com/asherons-call**. The game will go live in the States via the Microsoft Gaming Zone in Summer. UK date release is stalled until the launch of a European server, which is currently slated for Autumn. The charging structure is as yet undecided.

Flash Grandmaster

Quake has its first professional. February saw Dennis 'Thresh' Fong (who has already won a 3 Ferrari 328GTS from id Software's John Carmack) win the first deathmatch *Quake* finals of the Professional Gamers League in Seattle. He pocketed $7,500 for his troubles.

'Competing in, and winning, the first PGL championships was truly unforgettable,' said Fong. 'The competition, the venue, and the fans all combined to make this by far the most impressive computer gaming event I've ever seen.'

To the surprise of many of those fans, the finals produced some excitement when his opponent, Reptile, actually beat him in an early round. The event was Webcast live, enabling some 10,000 watching *Quake* players to roll their eyes and mutter: 'I could do better than that...'

Sadly, as is so common in the sports world, the victory was marred by controversy. The furore centered around Fong's involvement with Gamer's Extreme, a company Fong set up with his brother last year, which was hired to assist with the administration of the PGL. Although Fong derived no unseemly benefits from his association with the company, he decided to act after complaints from other gamers.

A company statement said: 'Mr. Fong has decided to renounce these shares in order to avoid any potential perceived conflict of interest in his newly chosen career path: full-time professional gamer and member in good standing of the PGL.'



Webcast highlights from the Thresh versus Reptile PGL final. Dennis 'Thresh' Fong is the psychopath dressed in the fetching green jumpsuit

For more information on the Professional Gamer's League, visit the Web site at **www.pgl.net**. Sadly, there are no plans as yet to launch a European version of the competition.

(BIG IN JAPAN)

Men are from Mars, Girls are on Saturn

Many Japanese game obsessives began 1998 pledging to meet more girls. It's April, and some will have fulfiled their resolutions already.

'Virtual' women smile coquettishly from the shelves of Japanese game stores, boxed and badged as 'Girlfriend Simulators'. Having sold games for years with advertising artwork depicting shy, beautiful nymphets, certain sections of the game's industry have elected to cut out the middle-women and just sell the girls instead.

Originating in PC sex and titillation software, the new games have already found a platform on the Saturn and PlayStation. The most popular title is *Sentimental Graffiti*, from NEC Interchannel. Released on January 22nd, by the end of the month it had sold 159,137 copies, a pretty good showing for a Saturn game these days.







The roots of the game lie in 1997's 'Sentimental Graffiti' Japanese animation show. 12 cute female pop stars from the TV show swamped the media, appearing on TV, speaking on the radio and giving concerts and merchandising sales all over Japan. In Akihabara, it's possible to find replicas of their costumes in specialised shops. At first glance, *Sentimental Graffiti* looks like nothing special, consisting of simple 2D illustrations married to SNES RPG-style text messages.

Rather, the game's popularity lies in its 'gameplay' as the slobbering gamer must hunt down 12 female characters, who represent the young popsters (their voices were provided by the 'real life' pop idols). Players have a wallet stuffed with cash, which they spend over the course of a year as they pursue the objects of their affection across Japan. When the money runs out, the journey ends, though a little extra money can be obtained from taking part-time jobs along the way.







The *Sentimental Graffiti* TV show features the hugely popular 'Girlfriend Simulators'

Should any idol be foolish enough to part with her phone number, the player can even phone her up and hassle her some more. Using the unusual method of accessing various menus (rather than a well-worn copy of '*How to Win Any Woman's Heart*'), the eager lover can obtain a detailed profile of each potential date and expertly choose how he wishes to wine and dine them. He's even got a diary to keep track of every rendezvous.

Sentimental Graffiti is bundled with a data CD-ROM containing extra illustrations of each idol and live footage from their concerts. With so much crammed into the package, these simulated girlfriends must be cheaper than their real-life Japanese counterparts...



Sentimental Graffiti is a pretty off-key kind of game, even given that it's being lapped up in Japan, a country where off-key simulators are currently exploding in popularity

Late night TV debut for *D2*

Warp's much hyped *D2* has reared its head once again. This latest sighting came unexpectedly on Monday, March 21, at midnight, when trendy TV show *Tonight 2* on Channel 10 broadcasted a special issue about music used in, and created for videogames. *D2*'s creator, Kenji Eno, announced that he himself will be composing the music for *D2* – he has a difficult act to follow in the form of acclaimed 'The Piano' composer Michael Nyman, who created the music for Warp's previous Saturn adventure, *Enemy Zero*.

Tonight 2 seized the opportunity to show the opening FMV movie of *D2* to the Japanese public. *D2* was originally developed for the Power PC-based M2 hardware, but fell into development hell upon the demise of Matsushita's much-maligned console technology. The official rebirth is now being forecast for May 23, when Eno will officially introduce his game to an eager throng of 5,000 people in a theatre in the heart of Tokyo.







As reported in **E**56, *D2* is widely rumoured to be headed for Sega's next console, Katana – after its initial destination of Matsushita's M2



Top at the Shops

Edge charts the ten best-selling games in Japan over the past 12 months, up until January 31, 1998. The figures below show the dominance of the consoles in the Japanese market. (Figures courtesy of Digital Media Insiders).

1. Derby Stallion ASCII, PlayStation	1,760,564
2. Final Fantasy VII Square, PlayStation	1,630,014
3. Grand Turismo SCE, PlayStation	1,519,163
4. Minna no Golf SCE, PlayStation	1,468,049
5. Final Fantasy Tactics Sqaure, PlayStation	1,313,570
6. Bio-Hazard 2 Capcom, PlayStation	1,293,976
7. Chocobos Mystery Dungeon Square, PlayStation	1,058,888
8. Saga Frontier Square, PlayStation	1,019,905
9. Pocket Monster Red Nintendo, Game Boy	1,011,905
10. Pocket Monster Green Nintendo, Game Boy	976,223

Odd Men Out

It's a difficult game predicting winners in the Japanese market. As usual, some of Europe's most popular titles have failed to impress, but who would have picked *Mario Kart 64* to sell only a hundred thousand more copies than *Densha de Go*, Taito's coin-op train sim conversion. (Total sales until January 30, figures courtesy of Digital Media Insiders. Dates denote launch of title.)

Mario Kart 64 Nintendo, N64 (14/12/1996)	742,792
Densha de Go Taito, PlayStation (18/12/1997)	620,605
Grandia Sega, Saturn (18/12/1997)	362,214
Yoshi's Story Nintendo, N64 (21/12/1997)	224,864
Diddy Kong Racing Nintendo, N64 (21/11/1997)	219,771
Bakuhatsu Bomberman Nintendo, N64 (26/9/1997)	198,171
V-Rally `97 Spike, PlayStation (08/01/1997)	60,289
Nagano Hyper Olympics Konami, PlayStation & N64 (18/12/1997)	43,649

[ADVERTAINMENT]

The Bold and the Beautiful

Toshinden creator Tamsoft is running a series of odd-looking adverts (below left) for its forthcoming polygon-based PlayStation RPG, *Knight & Baby*. Meanwhile SquareSoft's RPG-style adventure *Parasite Eve* exposes the shoddy efforts of Western female character designers with this ad featuring the game's beautiful female protagonist (below right). The game was well-received when it was released in late March







THIS MONTH...
VIRTUAL PETTING
D2'S MUSICAL YOUTH
TOP AT THE SHOPS

AN AUDIENCE WITH...

BRUNO BONNELL

Having already acquired Ocean and now boasting big titles such as *Outcast* and *Mission Impossible*, continental Europe's largest videogames publisher is flexing it muscles. **Edge** meets Infogrames' charismatic chairman, Bruno Bonnell, a visionary who believes videogaming will become more important than TV...

The Chairman of Infogrames Entertainment, isn't an easy man to pin down. Forever moving and shaking, he's never far from his mobile phone or the next hotel. In conversation, he's equally prone to wanderlust. His chirpy, compelling rhetoric ranges freely over everything from branding strategies to the philosophical meaning of games. Indeed, his enthusiasm for games is extremely rare in a man of his seniority, and sits uneasily with his reputation as a power businessman, intent on forging a European rival to Electronic Arts.

Combining a global perspective with a grand vision, Bonnell excels at dinner conversation. **Edge** chews the fat before he heads for the airport...

Edge: You must be feeling good at the moment. Infogrames is back making headlines in the games press. What happened after *Alone in the Dark*?

Bruno Bonnell: We have just been working in the dark!

Edge: You seemed to wander off into the education and edutainment markets. When did that end?

BB: The first step of this rebirth was the association with Ocean. We decided we should go straight for games, and be proud of being a games company. Infogrames means entertainment now.

Edge: Why did you go in a different direction in the first place? Was it because of the slump in the games market?

BB: No, it was more because the PC was becoming a family machine – from games to productivity, to education and reference. We were kind of shy of being just a game company.

Edge: What led you to acquire Ocean?

BB: We had a hard time getting into the English market. It was very difficult to break this wall, and Ocean was, and still is, one of the big players. And I like its style. I like the very basic approach of the games – teenager-oriented action, faster



reflexes; we can be too philosophical sometimes. We're too 'Frenchie'.

Edge: So you agree that there is such a thing as a French style in videogames?

BB: Absolutely. I mean, what is this French stuff? It's the same with New Wave in the movies. People don't care if it's French, Indian, you know...

Edge: But don't French games try to be a little different?

BB: Yes, but there is a limit to the exercise. The danger is of falling into the trap of just doing nice graphics, showing you such sophisticated things that you can get lost in the complexity of the visual design. Gaming means going back to the basics sometimes.

Edge: What are you spending most of your time doing at the moment?

BB: Trying to make the vision real. We have people in Tokyo, Shanghai, Brazil, and all over Europe. I try to show them the common vision.

Edge: How many people in total?

BB: About 800.

Edge: How can you possibly present such a huge company to the public?

BB: The strategy is very clear. Infogrames is the label we are going to be using for publishing and distribution worldwide. Then we have the brand strategy. Ocean is the key brand – our teenager action games brand. Then we have a family brand, which is Infogrames for the moment, but that will change. The family brand will hold the licensed characters for different segments.

Edge: There's an argument that ▶

My vision is that gaming should be in the constitution

My vision is that gaming should be in the constitution My vision is that gaming should be in the constitution My vision is that gaming should be in the constitution

Photography: **Jude Edginton**

big companies buying up large parts of the industry will ultimately mean bad news for the consumer.

BB: I obviously completely disagree with that. I think it means that these customers are going to have a lot of access to the talent. Nothing is worse than this brilliant game staying on the shelves in the UK, and never being shown worldwide. By having the structure to put this product everywhere from Tokyo to LA, this product gets the chance to become a real number-one seller worldwide.

Edge: Just to recap briefly, what happened with *Mission Impossible*? Why the shift in development?

BB: Well, when we acquired Ocean, we acquired a team which was working on *Mission Impossible*. The design was interesting, but far too complicated. We tried for about six months to explain to them that it was a technology dream. It was a hard time, because we couldn't really get the communication right and I ended up telling them to stop it. We decided to move everything back to France, and fundamentally re-engineer the product.

Edge: How does that kind of decision go down?

BB: You know, when you feel you have the right global design, and you have the right people to handle it, you have to be tough sometimes. Some people are leaving, and some people are disappointed, but you've seen the team today. They're excited and they're really hard-working.

Edge: *Mission Impossible* is quite different to *Alone in the Dark*, in that you've had to buy the licence. Wouldn't you rather be creating original characters?

BB: Today, our licences are about 60 per cent of our sales. Yeah, you can look at it as a problem in terms of not controlling your own franchise. That's not the way I look at it.

Edge: Why is licensing still such an important issue these days?

BB: In order to create an original breakthrough game today, you have



to meet three conditions. One, you need a good game and a good concept. It's the most important one by far. Two, you need a sophisticated distribution structure. But more importantly, you need to achieve the highest marketing exposure. When the Infogrames board is deciding whether to do an original game, it's just not looking at development costs anymore. That time is gone.

Edge: Let's suppose the board is considering two games: one original, one tied to a licence. What are the pros and cons?

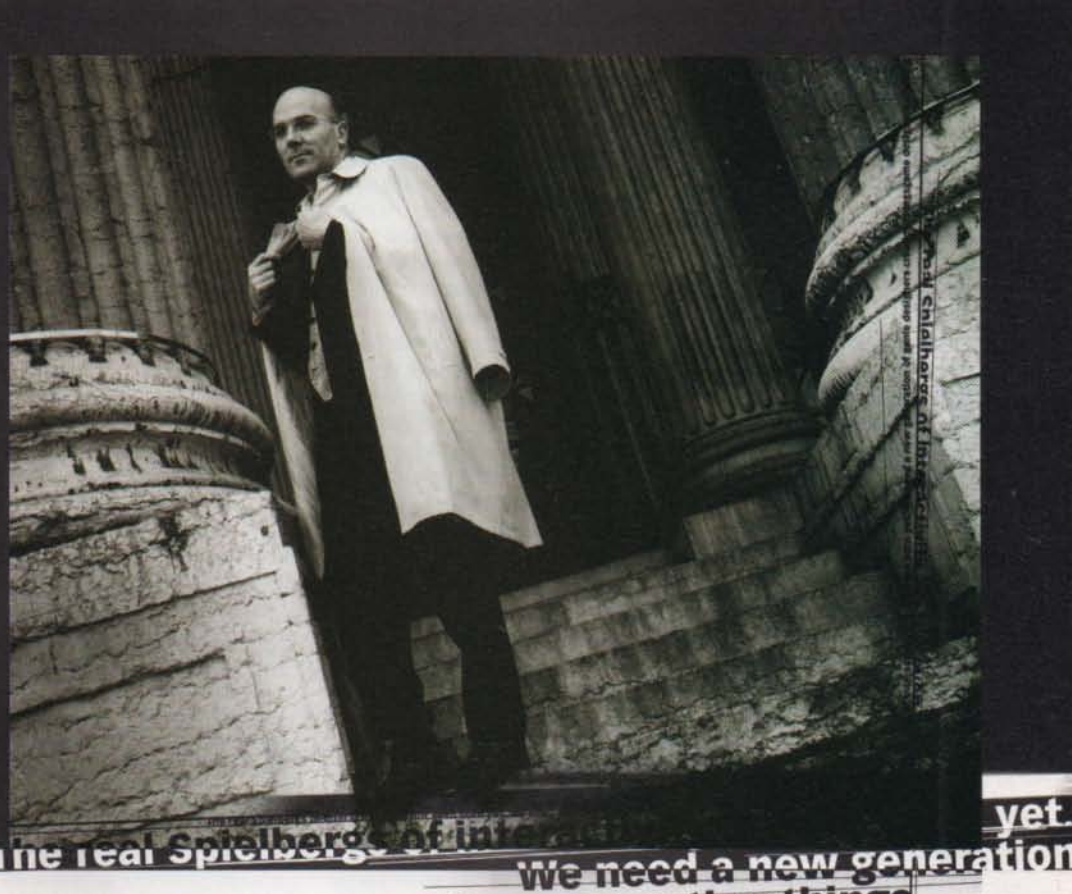
BB: We can spend $2m or $3m developing a product. How much money do we have to spend to give it proper worldwide exposure? *V-Rally* was up to $6m on marketing only, but that's the way to make 1.5m units in Europe. So how much money do we have to spend to make this real? Well, $6m or $7m. How much would it cost us to licence *Mission Impossible*, James Bond or something like that? Definitely less.

Edge: It's a cost issue.

BB: The exposure we get from a licence is more cost-effective than

Gaming is definitely developing skills. TV is dead

developing skills. TV is dead Gaming is definitely developing skills. TV is dead Gaming is definitely developing skills. TV is dead



launching the original product. We're going to spend much more money on *Space Circus* and *I-War* than on *Mission Impossible*. Don't get me wrong, I'm not telling you that because you get a licence, the product is going to be a success. I'm telling you that if you want to expose a great game, a licence is an interesting marketing idea.

Edge: But with a licence, you lose out on other possibilities.

BB: Yes, when you own the franchise, you own the property. But what for? I don't think there is really a future in reproducing the same franchise all over again. You can do two or three sequels but at some point – and we've experienced this with *Alone in the Dark* – you need to change.

Edge: But *Mission Impossible* is an old licence. Can't you equally well turn old games into movies once they're proven?

BB: It's the other way around. You need to think at the very beginning that you're going to do the game, the movie, the book. You can't look at how the game is doing and then try to negotiate a movie because he will just tell you: 'Okay, how many units did you sell?' A million units. 'Oh! Good. In how many countries?' Worldwide. 'Oh! Good. When?' Two years ago. 'Oh! Good. So it's gone, then. What's your next project?'

Edge: Do you have broad ideas of how gaming should evolve?

BB: My vision now is that gaming should be in the constitution. Eating, voting, working, gaming. It is definitely one of the key developments in the society of the future. In gaming, you learn skills that will help you become a social person of the next millennium. I really believe that.

Edge: You sound passionate about it. Edge loves games, but it's still hard to believe that they are really be teaching people important skills.

BB: Well, I remember that to get into the pilot training in Japan back in 1988, they would ask you your score at *Super Mario* on the SNES. Yes! It is definitely a good way to test your anticipation and your co-ordination. Look at simulation, look at adventure. Gaming is definitely developing skills. TV is dead; the TV society is dead. Let's go now into the interactive society. The core of the interactive society is the game.

Edge: Are games moving fast enough to match that vision? Gaming seems stuck in a rut.

BB: The real Spielbergs of Interactivity are not even born yet. We need a new generation of game designers creating things. We just cannot catch up with the technology, it is going too fast. We are always talking about more polygons, more speed, more memory. We have not explored the 16bit technology yet and we are already on 64bit. The real breakthrough is the understanding of the 3D world.

Edge: Agreed. 3D is proving to be far more than just cosmetic.

BB: We've seen this at Infogrames. It took us a long time to understand the design of 3D because you are really opening up new dimensions. The player is not just going one way like in the scrolling screen, he can go anywhere. *Mario 64* was really a revolution in that sense.

Edge: *Alone in the Dark* also pioneered a style that inspired a host of imitators.

BB: Yes, *Alone in the Dark* was definitely a revolution. *Resident Evil* in my mind is not a copy, but it is definitely an improvement.

Edge: How did you feel about Capcom taking your formula and capitalizing on it?

BB: Well, we should have done it ourselves. It is our mistake.

Edge: Why didn't you?

BB: Just lack of vision. Sometimes you are out of focus. *Outcast* is the next step into this direction. It took us five years to really find a new way.

Edge: Outcast is also notable for its voxel graphics engine. How important a role do you think graphics play in games?

BB: Graphics are not representing reality, but they are representing what is in your brain when you play. It is a completely subjective environment. That's why I don't believe in video in games, for instance. Video is bullshit in games. Video is about storylines – it's all about representing a reality.

Edge: How can developers adapt to the new challenges of 3D?

BB: A good designer is someone who can anticipate what the gamer is going to experience. He naturally closes doors that just don't make ▶

sense. Say you build a 3D world and you have five doors. Do you want to build five worlds behind these five doors? Well, yes, but think about 15 doors – it's a little more complex. How can we drive the player naturally, so that he will never have the idea to open this door? A chess player will never make the wrong move, because he knows that the player facing him is going to take advantage of that. The game designer is already playing with his future customer – the game of 'what is going to be your next move?'

Edge: Where will you find these new games designers?

BB: We are going to see people born and raised with games as their natural culture. When I tell you that TV is dead, it's because their reference today is not TV. It is not sitting in front of the television show and listening to the world. I can zap 15 different channels at any time. I can listen to MTV; I can read my pager; I can listen to my portable phone/radio... I can do anything. When I say that TV is dead – of course it's still alive for quite a long time! But mentally, it's not our model of interactivity.

Edge: So you would rather play games than watch television?

BB: Absolutely, and I bet you that people will make this choice more and more. It's a political issue. The radio and television is a very interesting mass-market information system, but it's not a very good mass-entertainment system. When you realise this vision, then you say, 'Okay, we don't want to be shy, we must be very proud of this. This is the future, so we better invest in it.'

Edge: How have you gone about investing in this future?

BB: We needed a distribution structure that was solid enough – Philips Media – and now we are talking more with talent. We try to explain that we can give them a structure, so that they can express themselves correctly. We're not interested in buying talent. Nobody is able to buy talent: it's not something for sale, it's something to seduce.

Edge: What do you think of Gathering of Developers [GOD] and its idea that developers will run their own affairs, releasing games only when they're ready?

BB: I think that the deal between the developers and the publishers and distributors has to be a deal. It's not like an endless story: 'I'll just see what I'll do, call me next time and give me ten million dollars, and I'll work on it'. No way! When we say we have a project, it's a contract. If you



want me to tell you about my project 15 years from now, I can do it. I can tell you that computers by then will have so much memory and artificial intelligence and cameras that will be able to identify your body movement. Yeah, I can dream. But let's be real, we're talking about a market here. The market, specifically on PC, is a moving target of technology. If you don't shoot at the right time with the right product, then even if it's a great concept, forget it. If you're too late, you're too late.

Edge: Is that what happened with *Heart of Darkness*?

BB: Actually, that's an interesting thing. I call it the problem of the surfer: if you're miss the wave, you stay here. If you're before the wave, it's crashing on your body, and you go nowhere. You want to be on the right wave. With *Heart of Darkness*, clearly the technology at that time was not realistic. If you design a mass-market game with this technology, you'd better wait till the mass market is ready to buy it.

Edge: You do seem to be designing games in a mass-market mould. *Outcast* and *Space Circus* seem more like console games than PC games.

BB: We're trying to show the way. Today the consoles are not as sophisticated as the PC in terms of technical performance, so for me the PC is kind of a big R&D department. It's an auto-financing R&D department, because if you do a big success on the PC, it definitely pays off. But the PC is a big laboratory for us. So now, looking at Katana, for example, we are beginning to see machines that are getting closer to the PC style. All this R&D effort won't be wasted. It will pay off on the next wave of machines.

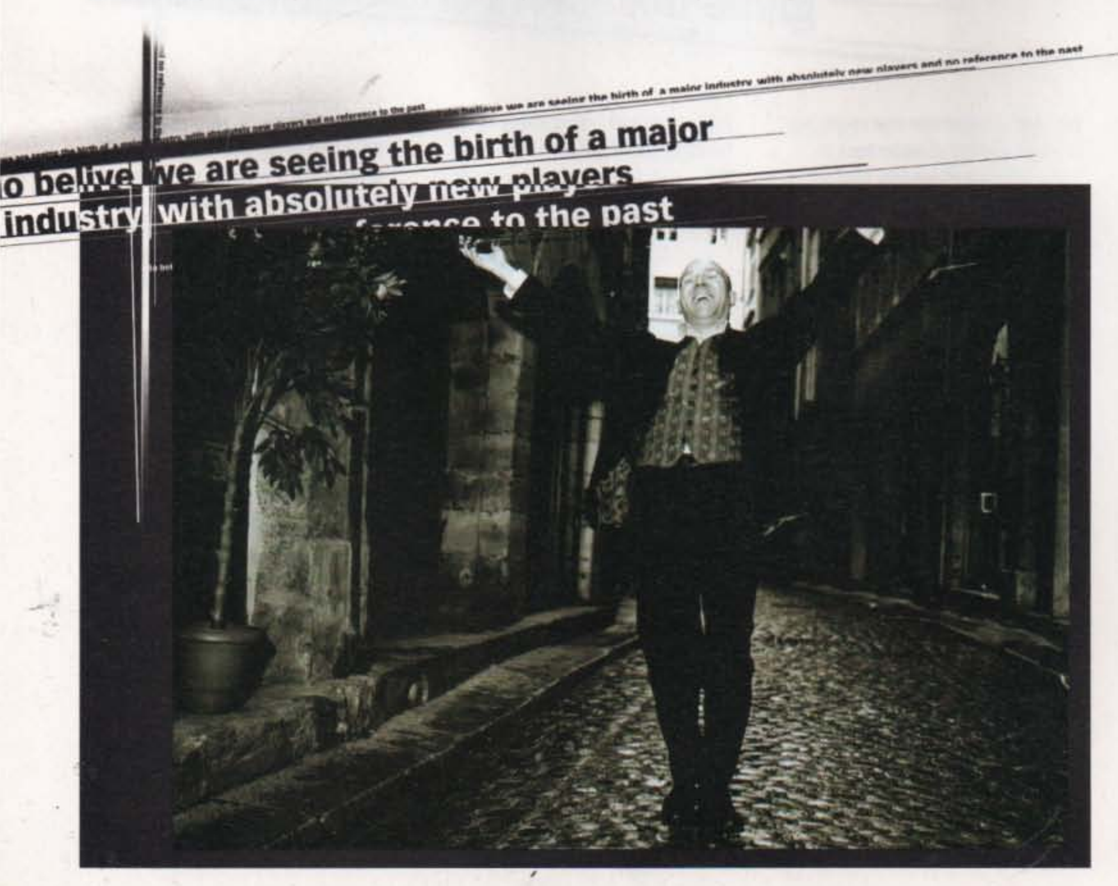
Edge: But companies like Nintendo, Square, Sony and console developers are pushing enormous amounts of money into R&D too. Can you really compete with them financially?

BB: It's not a money issue, it's the game, the vision and identifying the talent. If it had been a money issue, then Infogrames, Eidos or Electronic Arts would never have existed. We had the likes of Time Warner, Philips and Murdoch coming in.

Edge: That's true. Money didn't buy them great titles.

BB: The game is completely open; it's not a money issue. If you have the right ideas, the right people and you focus your energy on something, you may win. As the Japanese say: there is a will, there is a way. My will is pretty big, so we'll find a way. [Laughs] I am very serious. We are seeing the birth of a major industry, with absolutely new players and no reference to the past. ■

o belive we are seeing the birth of a major industry with absolutely new players ...ference to the past



PRESCREEN

A ROLL CALL OF THE NEWEST ARRIVALS IN THE WORLD OF VIDEOGAMING

Picked and mixed

Tactical and strategic elements are permeating arcade-style gameplay

It is widely accepted that game developers will continue to try and push the graphic capabilities of PCs and consoles to the very limit of what is technically possible. But fortunately, there is adequate evidence to suggest that this perennial obsession is gradually becoming complimented by advances in game design, too. Many game genres are now packed to capacity with reasonably good facsimilies of popular titles, increasingly there are only two directions to take if a title is to be noticed by both press and punters: be the best, or be different. And naturally, the latter is more attainable.

Activision's *Battlezone* (testscreened **E**57), DMA's *Grand Theft Auto* (**E**52) and Sega's *Sonic R* (**E**53) are examples of the innovative blending of various genres, and this approach is clearly a good way for developers to successfully create 'different' games. But the design trend that holds the most potential is the introduction of strategy elements into more mainstream genres. *Battlezone* is perhaps the best exponent of this 'mixed-up' approach, taking a *Quake*-style first-person shooting game and overlaying it with tactical elements (similar to those found in Westwood's *Command & Conquer*). However, the term 'tactical' can be applied in more oblique ways to describe advances made in videogame design, such as the planned approach required to complete some of the levels in Rare's *GoldenEye* – taking out the security cameras to prevent being captured is just one example, while the completion of most levels requires pace and some degree of planning – going in guns blazing, coin-op-style, often means suicide.

This less-obvious integration of strategy into mainstream (and more importantly, console) games is an area of game design that **Edge** expects to grow significantly. Konami's stunning *Metal Gear Solid* (revisited on p48) is currently redefining what can be expected from the action genre, with Infogrames' *Mission Impossible* (p38) trailing in its wake. What makes these games so engrossing is the increase in the player's immersion and interaction within an environment. For instance, to succeed in *Metal Gear Solid*, the player must be careful when hiding in in the cold outside where Snake's breath might be visible to the enemy. Hand-to hand combat, to prevent attracting unwanted attention, is essential too. These may seem like small steps to a videogames outsider, but the ability to outwit non-player characters is a leap forward in game design – leaps that are beginning to cover greater ground with each successive attempt.







***GoldenEye* changed developers expectations of what a console title could be. Konami's *Metal Gear Solid* and Infogrames' *Mission Impossible* are picking up the baton and running with it**

Edge's most wanted

The videogames making waves before their arrival

1	2	3	4	5
				
Turok 2	**Metal Gear Solid**	**Capcom Generation 2**	**Commandos: B.E.L.**	**Legacy of Kain 2 (tbc)**
(N64) Iguana US	**(PS) Konami**	**(PS) Capcom**	**(PC) Pyros**	**(PS) Crystal Dynamics**
New details have pushed the game to the top of **Edge**'s wish list. Should set a new high for the N64's graphical abilities (and help its reputation)	Smoking can damage your health – in *Metal Gear*, at least. Light up a cigarette and watch your health meter fall. This is going to be *very, very* big	*Ghost's 'n' Goblins*, *Ghouls 'n' Ghosts* and *Super Ghouls 'n' Ghosts* on a single CD? 'Nuff said. *1942* and *1943* arrive first, though, on *Generation 1*	Pyros' game reminds of the Amiga classic *Cannon Fodder* – but with more detail and depth. **Edge** hopes the latter doesn't translate to 'fiddly'...	The early code features dark character designs, a powerful 3D engine, and innovative touches. *Castlevania* fans will love the look of this...

Index

PRESCREEN ALPHAS

EDGE PREMIERES THE FRESHEST FACES ON THE INTERACTIVE ENTERTAINMENT STAGE

GT RACING

FORMAT: **N64** DEVELOPER: **IMAGINEER/GENKI**













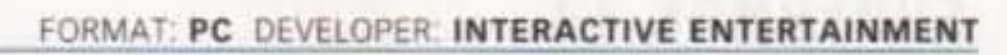




With PlayStation owners having been swamped with driving titles worth investing in – notably *Gran Turismo* – N64 are owners still without a truly deserving example. Now Genki, the creator of *Multi Racing Championship*, has announced its own Japanese GT racing game for Nintendo's machine. Based around an official license, *GT Racing* contains all of the cars and drivers from the real championship. Designed as a simulation rather than an arcade-style experience, Genki's game has a total of six courses set in three locations, and will support Nintendo's Rumble Pak. Play modes so far confirmed include a two-player option, plus a championship setting with races lasting up to half-an-hour. Ocean will be publishing *GT Racing* in the UK this summer.

CASTROL HONDA SUPERBIKE

FORMAT: **PC** DEVELOPER: **INTERACTIVE ENTERTAINMENT**





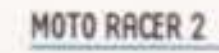






Delphine's *Moto Racer* seems to have inspired a slew of two-wheeled racers on the PC. The 1997 Superbike Championship winning Honda RC45 costs £250,000 and boasts a top speed of 200mph; here gamers will be given the chance to race it all over the globe, on both circuits and streets.

MOTO RACER 2



These early shots are from the sequel to **Edge** favourite, *Moto Racer*. Almost nothing is known of Delphine's game yet, but it looks like maintaining at least its high graphical standards

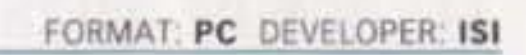






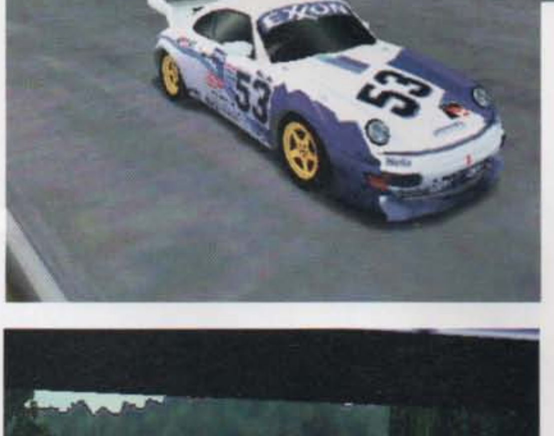
SPORTSCAR SUPREME GT

FORMAT: **PC** DEVELOPER: **ISI**













While impressive, accelerated PC games are fast becoming ten-a-penny, *Sportscar Supreme GT* from ISI is one of the best looking Voodoo-powered racers for the PC. Set to be published by Virgin Interactive, *Sportscar* contains the full gamut of GT cars, such as the Panoz Esperante and McLaren F1, from the corresponding American race series. Sadly, the PlayStation version lacks its PC sibling's graphical panache. Both will be released in October.

◀ RAKUGAKIDS

While unlikely to be released in the West, *Rakugakids* is an oddball N64 fighting game from Konami. The game's graphic design is clearly its most striking aspect, using flat-plane characters similar to *Pa Rappa the Rapper* on the PlayStation. **Edge** has yet to sample *Rakugakids*, but hopefully its gameplay will approach the visuals for innovative touches



SUPERMAN 64

FORMAT: **N64** DEVELOPER: **TITUS**



Set for official release at the May E3 show in Atlanta, *Superman 64* is based on the animated cartoon series rather than the Christopher Reeves movie. As ever, Superman must save the world from the evil Lex Luthor who has built a mega-weapon capable of mass destruction. With new screens from the game on their way, **Edge** will report in more depth soon.





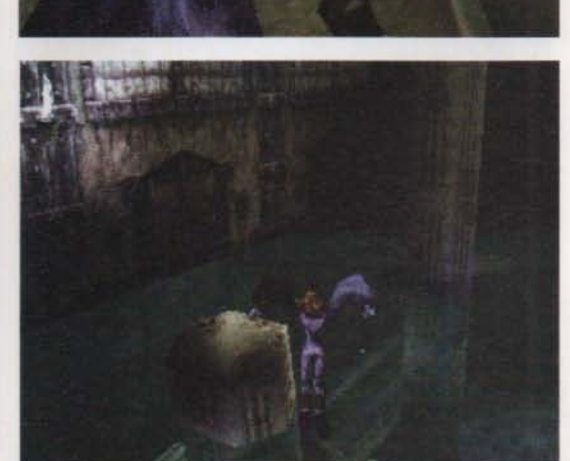
LEGACY OF KAIN

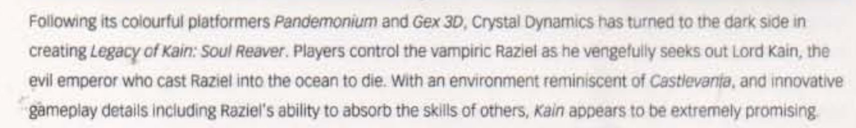
FORMAT: **PLAYSTATION** DEVELOPER: **CRYSTAL DYNAMICS**











Following its colourful platformers *Pandemonium* and *Gex 3D*, Crystal Dynamics has turned to the dark side in creating *Legacy of Kain: Soul Reaver*. Players control the vampiric Raziel as he vengefully seeks out Lord Kain, the evil emperor who cast Raziel into the ocean to die. With an environment reminiscent of *Castlevania*, and innovative gameplay details including Raziel's ability to absorb the skills of others, *Kain* appears to be extremely promising.







THE UNHOLY WAR

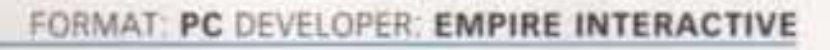
FORMAT: **PLAYSTATION** DEVELOPER: **CRYSTAL DYNAMICS**







Designed from its outset as a two-player experience (much like the seminal *Return Fire*), *The UnHoly War* is the latest title from the *Gex 3D* development team. *UnHoly* features two modes; a turn-based tactical version, and a (more exciting) action game. To be released in the autumn.



MAGIC AND MAYHEM

X-COM creator Mythos is turning its eye to classical fantasy for its strategy game *Magic and Mayhem*. The player controls a wizard who fights other mages by summoning ever more powerful creatures. Drawing on Greek, Celtic and medieval cultures, *Magic and Mayhem* promises a blend of mythology and historical accuracy and should arrive in September, courtesy of Virgin




APACHE HAVOC

FORMAT: **PC** DEVELOPER: **EMPIRE INTERACTIVE**











As its named suggests, *Apache Havoc* will enable gamers to choose from two attack helicopters, the American AH-64D Apache Longbow and the Russian Mil-28N Havoc B. The developers have designed their 3D engine for low-altitude simulation, and the resultant emphasis on ground terrain will allow players to mimic true helicopter combat tactics, such as launching ambushes from behind trees or travelling out of sight along sunken rivers.

◀ JIMMY WHITE 2: CUEBALL

Veteran coder Archer Maclean's (*Dropzone, IK+*) latest game looks like it will be the last word in digital snooker and pool when it's published by Virgin in August. New motion-capture techniques and an engine that negates blockiness bring to life the titles' 3D simulators, Edwardian games rooms and 1950's US pool bars, plus dozens of sub-games like draughts and darts



WLS '98

Developed by Silicon Dreams Studio, *World League Soccer '98* allows players to engage in arcade-style pitch-related activity and is one of the more impressive of the many examples of this genre **Edge** has seen in recent times. The animation is particularly fluid and the game features head and torso tracking for an extra level of realism. Expect PC, PS, N64 and Saturn versions soon

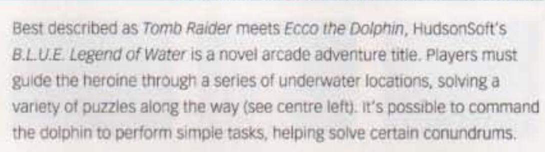


B.L.U.E.

FORMAT: **PLAYSTATION** DEVELOPER: **HUDSON**







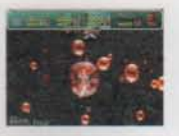
Best described as *Tomb Raider* meets *Ecco the Dolphin*, HudsonSoft's *B.L.U.E. Legend of Water* is a novel arcade adventure title. Players must guide the heroine through a series of underwater locations, solving a variety of puzzles along the way (see centre left). It's possible to command the dolphin to perform simple tasks, helping solve certain conundrums.




STAR OCEAN 2

FORMAT: **PLAYSTATION** DEVELOPER: **ENIX**

The previous *Star Ocean* was released three years ago as a SNES title. Less famous than its stablemate *Dragon Quest*, the game is a traditional heroic adventure RPG. Less usual are *Star Ocean 2*'s environments, which feature a mixture of gorgeous 2D and 3D graphic styles. Action takes place on Earth and in space, and promises to be of above average standard.








XI

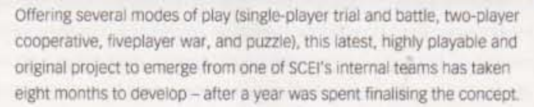
FORMAT: **PLAYSTATION** DEVELOPER: **SHIFT (SCEI IN-HOUSE)**









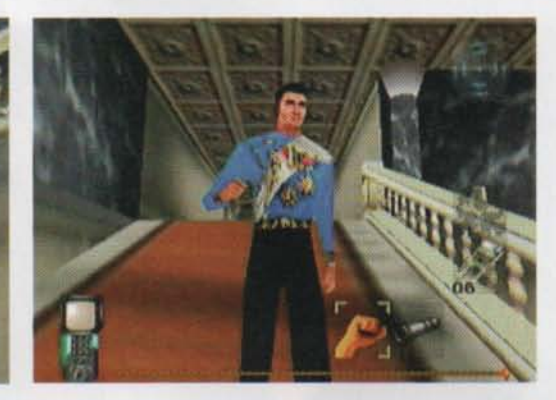


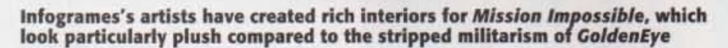
Offering several modes of play (single-player trial and battle, two-player cooperative, fiveplayer war, and puzzle), this latest, highly playable and original project to emerge from one of SCEI's internal teams has taken eight months to develop – after a year was spent finalising the concept.

MISSION IMPOSSIBLE

Some cynical N64 owners were beginning to suspect it had self-destructed. Undeterred, **Edge** tracked down an almost-complete version at Infogrames' French headquarters



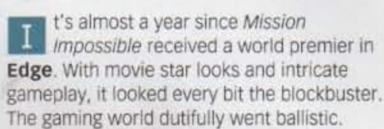




Infogrames's artists have created rich interiors for *Mission Impossible*, which look particularly plush compared to the stripped militarism of *GoldenEye*



Many of the objects in *Mission Impossible* have a practical use, including this grand piano which is used to charm patriotic officials



It's almost a year since *Mission Impossible* received a world premier in **Edge**. With movie star looks and intricate gameplay, it looked every bit the blockbuster. The gaming world dutifully went ballistic.

Two crucial things happened in the months between Spring 1997 and today. First, Rare released its rather glorious *GoldenEye*, which raised gaming standards universally, and made life for any would-be rival spy-and-film-licence combos particularly difficult. Second, continual problems with *Mission Impossible*'s development forced Infogrames to shut down the US operation and bring the game back to France. The game's title was starting to look eerily prophetic.



Lighting effects signify imminent danger such as searchlights (here) and gas leaks



Format:	N64
Publisher:	Infogrames
Developer:	In-house
Release:	Summer '98
Origin:	France

However, **Edge** can now report that *Mission Impossible* is alive and well, holed up in a Lyon studio. Even better, it should sit happily alongside Rare's game, since it offers a radically different playing experience to the ultra-violence of *GoldenEye*.

Despite all its subtlety, *GoldenEye* is an unashamed shoot 'em up. *Mission Impossible*, on the other hand, has more in common with titles such as *Alone in the Dark* and even *Metal Gear Solid*.

The film's star, Tom Cruise, insisted that the game featured very little bloodshed. Some gunplay has slipped into the most recent versions (when **Edge** first saw the game, the player was only armed with tranquilizing darts) but in the main, the game demands the sort of stealth and forethought more commonly found in point-and-click adventures. According to Infogrames, it's closer to a sim than a shooter.

As one would expect, *Mission Impossible*'s storyline roughly follows the movie. All the standout moments from the film are there, including scenes showing Cruise stealing data from a CIA computer





Targeting in the first-person is made easy by transparency effects



This shot will be familiar as the opening scene from the movie. Ethan Hunt studies the movements of a Russian spy through a special one-way mirror






While fist-fighting is sometimes the only option, mines, 7.65mm and 9mm pistols and Uzi machine guns all make sporadic appearances




The film served to define the detailed backdrops

while suspended upside down, the claustrophobia of the Channel Tunnel and the glamorous embassy of Prague. But rather than just re-hashing the movie, the developers have rejigged its elements cleverly, giving the game its own story. There are twenty levels in all, which are split between action/adventure and more arcade-style scenarios, including one which puts the gamer in charge of a gunboat chartered through hostile waters, weapons blazing.

Moving through these levels calls on three camera viewpoints. Two represent the player from a third-person perspective: a *Tomb Raider*-style floating camera and a chase view. The third, a zooming and aiming mode activated by the R button, shifts the view to the first-person and aids accurate aiming, with a transparent skeleton representing the player's body as he moves his gun.

The following mission is typical of those **Edge** witnessed: the player must gain access to certain areas of a Prague embassy and requires the assistance of an official, who is hidden away upstairs and will only reveal himself when he hears the Czech national anthem. There's a pianist in the room – but he has no idea how to play the anthem, so the player goes hunting for the musical score. After a few more complications, the pianist is given the music, he strikes up the anthem and the official descends downstairs. The player can then knock him out and, using the face-mapping gadget from the movie, assume his identity by creating a rubber mask.

With characters milling about and a fair amount of dialogue, *Mission Impossible* might seem more like a LucasArts adventure than an action-packed spy thriller. In reality, it nips along more like *GoldenEye*, but it does try to offer deeper gameplay.

Work remains to be done – even Infogrames admits it faces stiff competition – and the version **Edge** saw was certainly short on graphical refinement. But if *Mission Impssible* can deliver on its renewed promise, it should still be one of the biggest N64 games of the year.



One action-packed level sees the player commanding a gunboat, blasting the gun towers en route, and is reminiscent of *GoldenEye*'s tank levels

SPACE CIRCUS

The nineteenth-century circus master PT Barnum famously quipped: 'There's a sucker born every minute.' One hundred years later, it seems a *Mario 64* 'tribute' arrives almost as regularly



***Space Circus* features detailed interiors (above) but the real achievement is the outdoors which, like in *Mario 64*, are always visible as a whole**



No 3D game can totally avoid the dark tunnels

Format:	PC/N64
Publisher:	Infogrames
Developer:	In-house
Release:	Autumn
Origin:	France

Only one of Barnum's suckers would expect every 3D platform game currently in development to live up to Nintendo's *Mario* masterpiece. Yet as another circus master, the designer of Infogrames' *Space Circus* **Xavier Schon**, points out, the sheer variation demonstrated by the current rash of titles like *Tonic Trouble*, *Banjo Kazooie*, *Holy Magic Century* and *Space Circus* simply demonstrates in how many ways the template can be taken.

Recalling his own inspirations, which range from 'The Simpsons' to Japanese manga, Schon says: 'I was tired of serious science fiction. It seemed that nobody wanted to laugh at the future. I was dreaming of a science fiction Disney cartoon.'

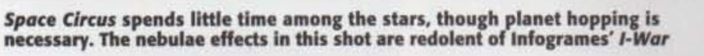
The result is as odd as its genesis would suggest, centering on an intergalactic sideshow under threat from hi-tech rival the Virtua Circus. As circus owner Starshot, the player must uncover sensational new acts from across the galaxy to win back the audience. It might sound more *Theme Park* than *Mario*, but *Space Circus* is essentially a planet-hopping platformer, with circus-ring stars replacing gold stars as the gamer's reward. Even Starshot gets in on the act: he's an expert juggler who throws explosive stars, which can be guided like missiles to destroy monsters hiding around corners.

Space Circus is superficially reminiscent of Rare's upcoming *Banjo Kazooie*, with cartoon graphics and player-assisting characters – two robotic companions in this case. Although the gamer can't control the droids directly, they do usefully extend Starshot's abilities. Willfall, a gabby little robot on wheels, is handy for extracting information while pet rocket Willfly enables Starshot to speed across the planet's surface. Starshot's sidekicks are also vehicles for humour. 'Every interactive situation is designed to be funny and playable at the same time,' says Schon.

Graphically, the brief was to keep proceedings out in the open. The resultant graphics engine can draw even distant



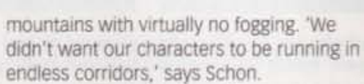




Space Circus **spends little time among the stars, though planet hopping is necessary. The nebulae effects in this shot are redolent of Infogrames'** ***I-War***



Here Starshot visits 'Torture World' in his search to book new acts for the Space Circus. His robot sidekick, the green Willfall, looks on



mountains with virtually no fogging. 'We didn't want our characters to be running in endless corridors,' says Schon.

He admits designing a 3D game is no easy task. 'None of the tricks used in 2D games are useful. The characters have to understand their environment in order to interact with the hero in a sensible way. You must put interesting things everywhere, because the player can go everywhere. And the player can do things in any order. It's harder, but we wanted to do something new. It's the beauty of our job!'

A final difficulty for the team was to create attractive visuals for both the accelerated PC and the Nintendo 64 versions. 'The problem on the N64 is the RAM and the cartridge size. We had to find tricks to keep the game looking the same.'

The result weaves together action and adventure with a non-linear storyline. It includes seven planets to explore, with 300 inhabitants scattered across them. Each planet has indigenous lifeforms, which can sometimes only be understood with what Schon terms 'ethnological gameplay'. 'Aliens have a weird but logical way to live,' he says. 'You have to observe them to understand the best way to act.'

With *Space Circus'* opening night approaching, Schon is confident it will please owners of either platform: 'Whatever the machine, gamers are looking for original and ambitious games.' **E**







The cartoon characterisation is well illustrated by these shark robots and a savagely toothed tank (main). Maintaining standards across PC and N64 was a major headache

INTERNATIONAL SUPERSTAR SOCCER '98

With the majority of the world's population shaping up to go football crazy, Konami has seized the opportunity to give last year's classic a '98 makeover







The last line of defence (top right) – now not so easily conquered by experienced players. Significantly enhanced AI and a wider repertoire of moves makes the goalie more effective. The advanced motion capture even shows players' heads following the ball and looking round prior to passing



Hot weather will take its toll on player stamina

Since its UK release last year, *International Superstar Soccer 64* – originally reviewed in **Edge** under its Japanese guise of *J-League Perfect Striker* (**E**42, nine out of ten) – has stood as one of the most durable games on the Nintendo 64, its fans wheeling it out for post-pub multiplayer sessions probably more than any other title for the machine. The reason for this repeat-play value is simple: it is the most realistic and entertaining simulation of football ever created.

Now, inevitably, a '98 version is being readied for release, to coincide with the World Cup tournament in France. Its creator, Major A (the Konami codeshop responsible for every Nintendo incarnation of the *ISS* series to date), claims to have streamlined just about every aspect of the original.

Predictably, the most immediately obvious improvement is in the visual department. The almost-complete Nintendo 64 version that **Edge** saw offered smoother, faster graphics with a breathtaking level of detail – the motion-captured players differ in height, and there's a pleasing quantity of small details such as the stretcher-bearers and liniment-wielding trainers that come to the aid of injured players.

Konami has also commissioned 'Match of the Day' pundit Tony Gubba to provide the commentary. It's hardly an unusual feature, but it conjures up a tangible sense of realism.

But gameplay has always been the *ISS* series' hallmark, and Konami has worked myriad improvements into the '98 mix, including enhanced through-ball passes, 16 strategies (as opposed to the eight of the original), a team-motivation feature – in which players' performance can be affected by low morale induced by poor management choices – and upgraded goalkeeper AI, making the last line of defence rather more difficult to beat than before.

In the face of competition from every other publisher jumping on the World Cup bandwagon this year, *ISS '98* already looks capable of repeating the success of its precursor. Expect a heated battle when it goes up against the likes of EA's officially licensed game in June.

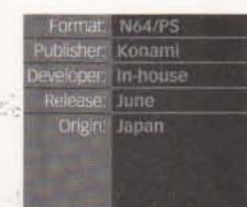




New camera options offer a wider range of possible viewing angles



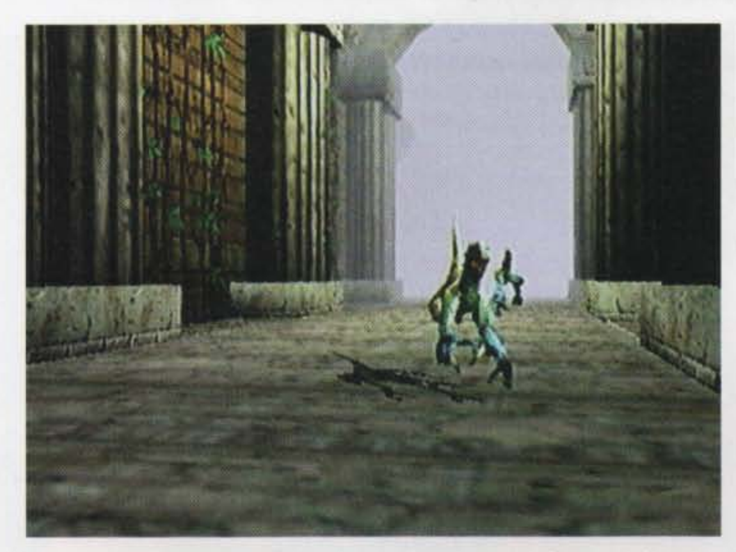
Up to six different play strategies can be assigned to buttons on the joypad



Format:	N64/PS
Publisher:	Konami
Developer:	In-house
Release:	June
Origin:	Japan

TUROK 2: SEEDS OF EVIL

Following Nintendo's recent stumbles, the task of attracting gamers to the N64's cause has fallen to the thirdparties. Luckily, Acclaim has a certain sequel on the way...



As yet, Iguana has been reticent to release character shots from *Turok 2: Seeds of Evil*. The multiplayer mode will feature new playable characters







The increase in graphic detail is striking. While distance fogging is still present, it doesn't slow progress as in the original game





These underground chambers illustrate the darker feel of *Turok 2*

Prior to the wave of plaudits that swamped Rare's *GoldenEye*, the N64 had another, more earthy, champion of its firstperson shooting flock. With its absorbing, visceral gameplay and stunning visuals, *Turok: Dinosaur Hunter* was (and remains) one of the most impressive thirdparty N64 releases. Given its glowing reception from press and public – at least in the West – a sequel to *Turok* was inevitable.

Based on the same comic book licence (which dates back to 1954), *Turok 2: Seeds of Evil* (working title) is destined to answer some of the criticisms that were levelled at its predecessor. Perhaps most importantly, the short draw distance that afflicted the original game has been addressed. Meanwhile, the plot has been much enhanced by the addition of multiplayer modes and new characters.

Turok 2 will also feature head-to-head deathmatch battles (as found in *GoldenEye*) along with an unusual co-operative option; players will be able to blast their way through levels four-up, yet be unable to harm one-another – or they can indulge in the 'Frag Tag' mode wherein one is hunted by the others until reaching a swap-over point. The single-player option has been enhanced by better enemy AI, with foes reacting to attacks rather than just standing still and taking hits.

Even more impressive is *Turok 2*'s breadth of interesting and unusual locations. Each of the game's eight worlds will have a distinct set of texture maps, and level names such as 'The Port of Adia' and 'The Death Marshes' suggest a wider range of environments. As yet, Acclaim has released no details regarding the size of the cartridge used to supply the game, but it seems likely that the 64Mbits used for the original *Turok* will be insufficient. As **Edge** reported in **E**47, the relationship between the sequel's levels is far less linear than in the first game, with more extensive use of hubs to connect areas. *Turok 2* is a far larger – and much darker – game than its predecessor. If the finished version lives up to expectations, Bond may finally have met his match.



Game locations are among the most varied yet seen in a first-person game



Format:	N64
Publisher:	Acclaim
Developer:	Iguana US
Release:	Summer 98
Origin:	US

Sole Survivors

Edge journeys to Guildford to meet new coder in town, Mucky Foot. Formed by a group of ex-Bullfrog creatives, the six-man team discusses going solo and reveals the foundations of its ambitious, combat-based *City of the Fallen*...



Photography: by Michael Donald



Mike Diskett's gun barrel noses around the corner, almost invisible in the darkness. His head bobs after it. Clear! With a quick hand flick, he signals to the two men behind him. Shaw and McGechie squeeze themselves forward past towering packing cases and a jungle of untended office plants. They crouch at Diskett's feet, poised to dash. Shaw counts silently on his fingers. One... two... three...

Shaw and McGechie spring into the corridor and into streaks of red laser fire. Three enemy soldiers bare down on them, trigger fingers pumping. Shaw and McGechie are immersed in a fracas of flashing lights and sirens. Diskett steps out like a Tarantino psycho, gun blazing, but he, too, is mowed down by the deadly light.

One of the enemy soldiers lowers his gun and takes a step forward, grinning broadly.

'Gotcha lads,' says **Guy Simmons**, systems programmer at Mucky Foot. 'I think you'll find that's 3-0 to us.'

Games for a laugh

Heading down to Toys 'R' Us for laser tag guns isn't the way every developer would celebrate the signing of their first game. But for Mucky Foot, a cheque from Eidos means – first and foremost – yet more freedom.

As well as giving them room to grow, Mucky Foot's new 16-office sprawl means space enough to wage war, somewhere for a telescope, and place for programmer **Mike Diskett** to unload his toys.

'We just like the idea of having lots of space,' Diskett says. 'One of my criteria was that I had to have a room to put my Scalextric in...'

Games are what drives Mucky Foot. All but one of the six-man team hails from nearby Bullfrog, and it was the need to escape its stifling corporate air once Electronic Arts had begun to call the shots that moved them to found Mucky Foot. This isn't about industry powerplay, it's about making games.

City slickers

Luckily for both Eidos and Guilford's financial community, playing soldiers is just a blip in the development schedule. *City of the Fallen*, to give Mucky Foot's first game its temporary working title, for PC and PlayStation, is about six months into production. Set in a dark metropolis riddled with crime, the game draws from a wealth of sources including Frank Miller's 'Dark Knight Returns', '2000AD' and the inner-city fighting films of Jackie Chan and Johnny Woo, as well as games like *Syndicate Wars* and *Tomb Raider*.

'It's a cross between a platform game and a beat 'em up, set in a city,' explains Mike Diskett, as Fin McGechie loads up an early version. 'It's all about the interaction with the city environment. We'll have beat 'em up moves like swinging off lampposts to kick into enemies, or hanging on to fire escapes to boot people in the head.'

Guy Simmons has gastric flu and the nocturnal Stuart Black apparently left the office at 8.00 am, but the four other Footers have crammed into one room to show **Edge** their first game. *City of the Fallen* is currently little more than slack ropes pegged into the countryside. The basic design is almost complete though; indeed, the plot is said to be so unique that Mucky Foot has been barred from discussing it. And despite its skeletal form, there are signs that the prototype could eventually be something special. Successfully implemented, the combat system alone will be some achievement.

The main aim is to create a platform/combat game with the fluid choreography of a Chan or Woo fighting film. Complicated actions will result from simple operations – a couple of button taps when standing by a fire hydrant could result in a devastating attack. Various objects lying about can also be utilised as weapons, adding even more variety.

Integrating the environment with hand-to-hand combat has been tried before, albeit on a lesser scale. Back in 1988 *Double Dragon* challenged the player to utilise whatever scrolled into view, but Mucky Foot's hand-to-hand plans are altogether more complex. ▶

***City of the Fallen* is currently little more than slack ropes** pegged into the countryside. The design is almost complete though; indeed, the plot is said to be so unique that Mucky Foot has been barred from discussing it





Climbing onto the rooftops will present excellent opportunities for sniping (top). At street level, fighting will focus on using weapons and the scenery, rather than on gunplay (bottom)



Fin McGechie, Mike Diskett and Guy Simmons named Mucky Foot after a Red Indian tribe in 'Asterix Conquers America'. Oddly enough, they were inebriated at the time



Name Mark Adami

Age 23

Shoe size 11

Then *Magic Carpet 2*

Now programming the 'fun stuff', like leaves and pigeons



Name Stuart Black

Age 30

Shoe size 7

Then *Populous 3*

Now high-end rendering and creating the textures



Name Fin McGechie

Age 28

Shoe size 10

Then *Magic Carpet*

Now initial design work, and integrating art with tools



Name Mike Diskett

Age 28

Shoe size 9

Then *Syndicate Wars*

Now AI programming, engine creation, 'taking it day by day'



Name Oliver Shaw

Age 26

Shoe size 8 (left) 9 (right)

Then secret Argonaut work

Now character animation and general artistry



Name Guy Simmons

Age 30

Shoe size 8

Then *Creation*

Now systems programmer and office administrater

And then there's the addition of guns to consider (although the emphasis will be more on careful sniping than on indiscriminate blasting).

Still, even simple football games have suffered from over-elaboration. Recreating spectacular combat while leaving the player feeling fully in control will be quite some challenge. But Mucky Foot is aiming its sights high right across the board. Indeed, *City of the Fallen*'s very streets are generations away from previous urban outings.

From the leaves swirling around the player's feet to the buildings crowding above, Mucky Foot's metropolis will be incredibly detailed. Haring down a back alley pursued by the cops, the player might clamber up a fire escape, only to disturb a feral cat that yowls and gives away his presence. If he then breaks into the building, he'll find interiors complete with living rooms, couch potatoes and stairs to the rooftops. Cars can be hijacked and hapless citizens randomly abused, although discretion might be a more prudent strategy. Superficially, it's like an isometric version of GTA, although to **Edge**, a closer cousin would be *Respect Inc.*, Pure Entertainment's upcoming *Syndicate*-style strategy game.

'I can see a lot more people doing this sort of thing,' concedes ex-Argonaut animator **Ollie Shaw**. 'Now we've got more powerful machines, creating complete cities is a logical step. I'm a big fan of *Quake*, but if you look at *Duke Nukem* there is something extra because of the environment,' he continues. 'The city helps you navigate but it also helps you believe that you're doing something real. I guess it's the difference between realism and believability.'

'We've taken the best bits from the cities we like,' explains **Fin McGechie**. 'San Francisco's rolling hills, Chicago's raised L-train and New York's subways and the Statue of Liberty.' Blended together, these will create a living metropolis with recognisable districts – tourist areas, financial centres with skyscrapers, docks and suburbs.

City of the Fallen's dense plot will see the player criss-cross this city repeatedly. To an extent, mastering the game will involve learning the best routes and shortcuts. Often, the cleverest way to get from A to B will be across the rooftops, like Robert De Niro's famous stunts in 'Godfather 2'.

For Mucky Foot's urban planners, another difficulty lies in marrying large-scale city planning with the little finishing vital touches. For instance, *City of the Fallen*'s streets are awash with leaves. As the player runs along, they kick up in his slipstream. Another nice touch is volumetric fog, which visibly

'We've taken **the best bits from the cities we like**,' explains McGechie. 'San Francisco's rolling hills, Chicago's raised L-train and New York's subways and the Statue of Liberty.' Blended together, these will create a living metropolis with recognisable districts



Each leaf is a polygonal model, and moves with the air currents. Rubbish and newspapers will also litter the streets in the completed game


City of the Fallen will consist of distinctly themed areas, which will help players find their way around the city

envelops the player as he passes through it.

'There are only so many polygons we can use in the game,' explains Diskett. 'We're trying to use them to give a more dirty, gritty feel. A normal city has rubbish everywhere.'

McGechie takes up the theme. 'We're working out a system to make the City appear busier. We want people constantly popping into view and cars driving past you, with the sounds of vehicles, people talking and alarms going off in the distance.'

To complete the illusion, the game needs a populace that behaves with some intelligence – at least the rudimentary type managed by New York's Bronx denizens.

Diskett says the team's previous experience on *Syndicate Wars* will stand them in good stead. 'The difficulty with AI is making sure the enemies aren't omnipotent,' he says confidently. 'If a cop sees someone on top of a building, he might not know how to get up there, but the AI code will know. We have to limit it so that he stands there scratching his head while the villain is shooting people from the rooftop.'


Much of the early design work in *City of the Fallen* is reminiscent of the artwork in comic '2000AD'. Mucky Foot remains tightlipped when asked about the game's plot

Characters in *City of the Fallen* will have a real field of vision. If they see the player dart over the wall at the end of an alley, they can follow him. But if they arrive too late, they might start hammering on doorways instead.

Mark Adami points out that *Syndicate Wars* easily hoodwinked gamers. 'People were saying these characters were amazing,' he says. 'Someone would run down an alleyway, and a gang of punks would split into two to head them off. But at the heart of it was a few random numbers and some clever algorithms.'

'It's the anthropic principle,' says Diskett. 'People tend to assume that things are intelligent. They will always find a reason to justify why someone has done something.'

'It can only be good for the industry that **these people are so passionate** that they'll quit their jobs and put everything on the line to do a game. It's like putting all your money on a horse – a horse that takes two years to come in'


Setting the game at night will make it easier to create a believable city. The team are working on methods to make the metropolis seem busier

Too big for its boots

Gamers will have to wait until 1999 to fully investigate Mucky Foot's sin-dripped streets. The company will continue to grow and hire new staff, and so assume its rightful place in a burgeoning Guilford development scene which includes Lionhead, Criterion, Negative, Simis and, of course, Bullfrog. While they're grateful for their years at Bullfrog, it's clear that Diskett, McGechie and Simmons rue the developers transition from passionate independent to EA offshoot.

'Over the last two years, a lot of people like us have been forming companies,' says Fin McGechie. 'It can only be good for the industry that these people are so passionate that they'll quit their jobs and put everything on the line to do a game. It's like putting all your money on a horse – a horse that takes two years to come in.'

But it isn't all about that finishing line. Diskett offers a final perspective on Mucky Foot's plans. 'We have our own idea of when Bullfrog was at its peak, from the point of view of working there and the company still being profitable' he explains. 'We want to reach that peak – we don't want to go beyond it.'

The laser guns have been fired and the impulsive Mucky Foot has taken its first solo steps. With the best will in the world, **Edge** hopes it's not *too* successful.





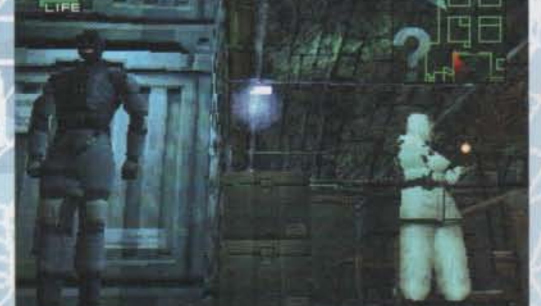
SOLID STATE

At last month's Tokyo Game Show, one game stood head and shoulders above the competition: *Metal Gear Solid*. Those who were lucky enough to play the show's practice mode and first level demo testified that the action espionage affair has the potential to be 1998's leader of the field.

Fuelled by several cans of Wonda Coffee from one of Japan's countless vending machines, Edge fought the massive crowds to get its hands on a free joypad before returning to Tokyo's Ebisu district (the Konami team's residence) for an update from the game's producer Hideo Kojima...









According to producer **Hideo Kojima** (above), *Metal Gear Solid* (left) is close to his original vision of the 1987 MSX game. The PlayStation game has been delayed until early September in Japan

The opening sequence of *Metal Gear Solid* is one of the most atmospheric **Edge** has ever witnessed, with a deep-voiced narrator and an elegiac yet deeply evocative, choral musical score, as Solid Snake's journey to the Alaskan nuclear weapons depot is detailed in a series of skilfully directed cut scenes. To add to the already cinematic quality of the proceedings, those responsible for the game's development have their names appear at regular intervals throughout the sequence in true Hollywood fashion.

Much has changed since **Edge** last saw the title. The most striking alteration is with the graphical effects, but the overall look of the game is now even more polished, with higher polygon counts rounding off the characters and filling in the structural gaps. Some of the non-playable scenes shown at the show were stunning, too (even more so than the footage on **Edge**'s cover CDs with **E**47, 52 and 54). For instance, one of the most memorable moments involves an underwater sequence where the camera displays a submerged, but still composed, Solid Snake carefully monitoring the action from below the surface. The view is distorted as the water gently undulates in a decidedly convincing and impressive manner.

All of these visual improvements must have pushed the developer to the limit, so Konami's confirmation that the game will now be released in Japan in September, having missed its rumoured April slot, was hardly shocking.

'We underestimated the processing power needed for a 3D environment – everything needs to be seen from any angle and this caused us a few problems,' explains producer **Hideo Kojima**. 'But we've ended up with the game I had originally envisaged when I did the MSX version of *Metal Gear*.'

In addition to the three dimensional world, polygon folding and pop-up also gave the 30-strong team a headache – yet they got around it. 'I didn't use a particular technique; the staff are young and this is their first game. I, too, am inexperienced as far as working with polygons, so it was a case of starting from scratch,' he recalls. 'It was simply a case of solid determination – the programmers and designers weren't prepared to compromise so it made it easier for me to continuously tell them to do better.'

The game's objective remains unchanged, though. Players must still sneak undetected around the levels and disable any enemy soldiers foolish enough to obstruct the progress of Snake's mission. The first stage, for example, involves rescuing a hostage held captive in the basement. Snake must ▶



THE INTRO

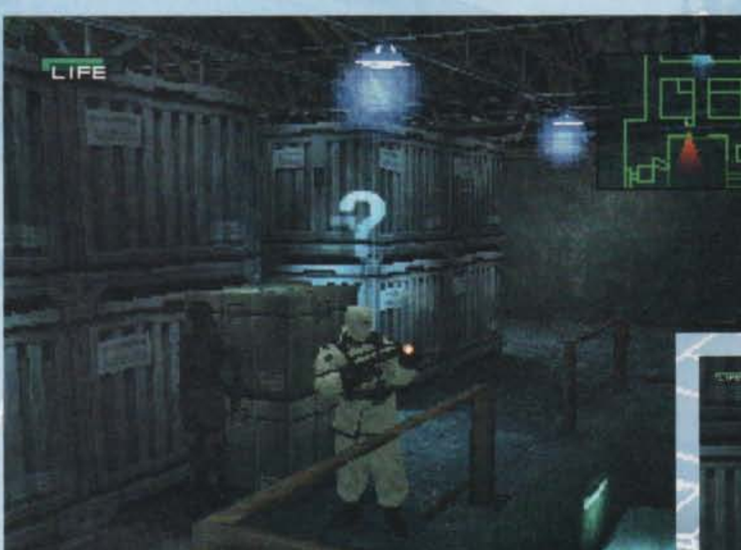
The introductory movie is highly impressive and is one of the most atmospheric and fitting examples of its type that **Edge** has seen in a long time. The filmic quality of the four-minute sequence should leave most players mesmerised

















Alerted enemy soldiers are signified by a suspended question mark (above) while an exclamation mark means it's time to make a move (centre). If Snake moves into an enemy's field of vision, players have to evade their opponent for the duration of a red countdown timer (above right) before the pursuing soldier ceases the chase







If attacked, enemies lie momentarily on the ground before getting up – unless shot, of course (above)

◄ first make his way into the compound from the snow-covered exterior while avoiding the searchlights and patrolling guards. Players wishing to minimise the chances of discovery still further can confuse the enemy by crawling on the ground in order to disguise Snake's footprints.

Surprisingly, the team decided to bypass Sony's Performance Analyser. 'We haven't used it and have no plans to do so either. We preferred to stick to the tools we put together,' affirms Kojima. 'There's still a lot to learn about the PlayStation but according to our programmers we're using 120 per cent of its power (laughs). Personally, I think in time we could get more out of it.'

Frankly, it's difficult to see how. The current amount of detail in Metal Gear Solid is astounding; rats scatter along damp, dark corridors, puddles drench the floor and, in sub-zero environments, Solid's breath evaporates into the air.

In spite of these neat visual touches, the game's potential is best expressed by other realistic elements within the gameplay. Some of the enemies sleep, and by using the binoculars it's possible to differentiate between those with their eyes open and those long lost in a dreamworld. Not that disposing of opponents should present much problem for an anti-terrorist agent. Press a button and Solid punches and kicks his way out of trouble and with a little practice, throwing, choking and neck fracturing soon become part of his repertoire. Alternatively, those not wishing to cause a scene may drag their victims out of sight and neutralise them in the shelter of a secluded corner.

Of course, hand-to-hand combat is preferable if one wishes to retain a low profile, but anyone not concerned with discretion will find a substantial array of weapons at their disposal throughout the game – after the initial hand gun, semi and fully automatic artillery as well as grenades, and proximity, timed or remote mines become available. Although very impressive, the sniper rifle (complete with zoom option à la *GoldenEye*) comes second to the remote controlled rocket launcher. Once fired, players can switch to missile view and guide it so as to ensure it reaches its target.

Weapons are not the only collectables within *Metal Gear*, however. Thermal goggles, health bar-friendly rations and even cigarettes can be taken from victims or found dotted around the levels. Boxes, although not collectable, can be

HAND TO HAND COMBAT IS PREFERABLE IF ONE WISHES TO RETAIN A LOW PROFILE. WITH PRACTICE, THROWING, CHOKING AND NECK FRACTURING SOON BECOME PART OF SNAKE'S REPERTOIRE...



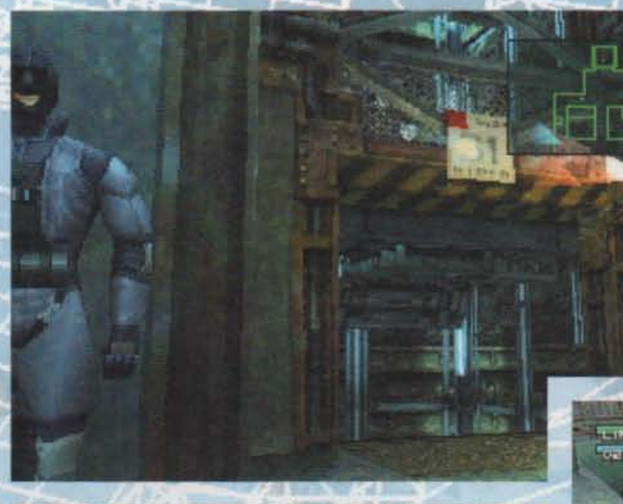












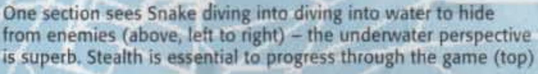












One section sees Snake diving into diving into water to hide from enemies (above, left to right) – the underwater perspective is superb. Stealth is essential to progress through the game (top)





The game is best played in third-person, isometric view (top), although when crawling in tunnels and under vehicles the perspective automatically becomes first-person. Note the superbly realistic puddles on the ground (top, second from top)

used to hide under and move around in once the enemy is not looking, with some humorous results. Furthermore, radio communication is also possible with some of the characters Snake encounters along his perilous journey, and these will offer advice on a variety of matters, such as weapons operation or techniques for defeating a particular adversary.

In terms of the viewing system, several options exist and are used at different points in the game. Cameras strategically placed in the levels display the action from the walls' perspective but it's possible to switch to a closer, third-person isometric-type view and when needed, the viewpoint can again be changed for a quick 360° look around through the character's eyes – although no other action can be undertaken while Snake observes his surroundings. In fact, players are only able to move in a first-person perspective in the 'intrusion mode'. This is automatically activated when crawling under an object, for example – the view switches to first-person and although weapons are limited to placing mines, it is possible to shift around undetected by the enemy.

Given the fluid, convincing movements of *Metal Gear's* protagonists, it is perhaps surprising to discover that the team decided not to motion capture the game's characters.

'That had been our initial plan – we used Konami's internal studio, collected plenty of data but found that we ended up with too many of the actor's own traits. This caused a problem as Solid Snake is a fictitious character and we felt it was more appropriate to make him move in an anime-style,' explains Kojima. 'So we gave up the motion capture idea and employed some anime specialists. Instead of drawing on cells, they used our equipment to draw directly on the screen.'

Naturally, the sheer scope of this title does mean there's a lot in *Metal Gear* that takes time to assimilate, and may prove a continual handful for some players. Yet this is still another area the team hasn't forgotten. 'There are no selectable difficulty levels in *Metal Gear* but, during the practice stage, the player's performance will be analysed and the game will adapt accordingly,' explains Kojima. 'For instance, some of the guards may be relocated to aid weaker players.'

With the game set for release on September 3 in Japan, and over eight hours of speech to be translated, the wait for for the western version of *Metal Gear Solid* will be nigh-on intolerable. **Edge** is gearing up already...



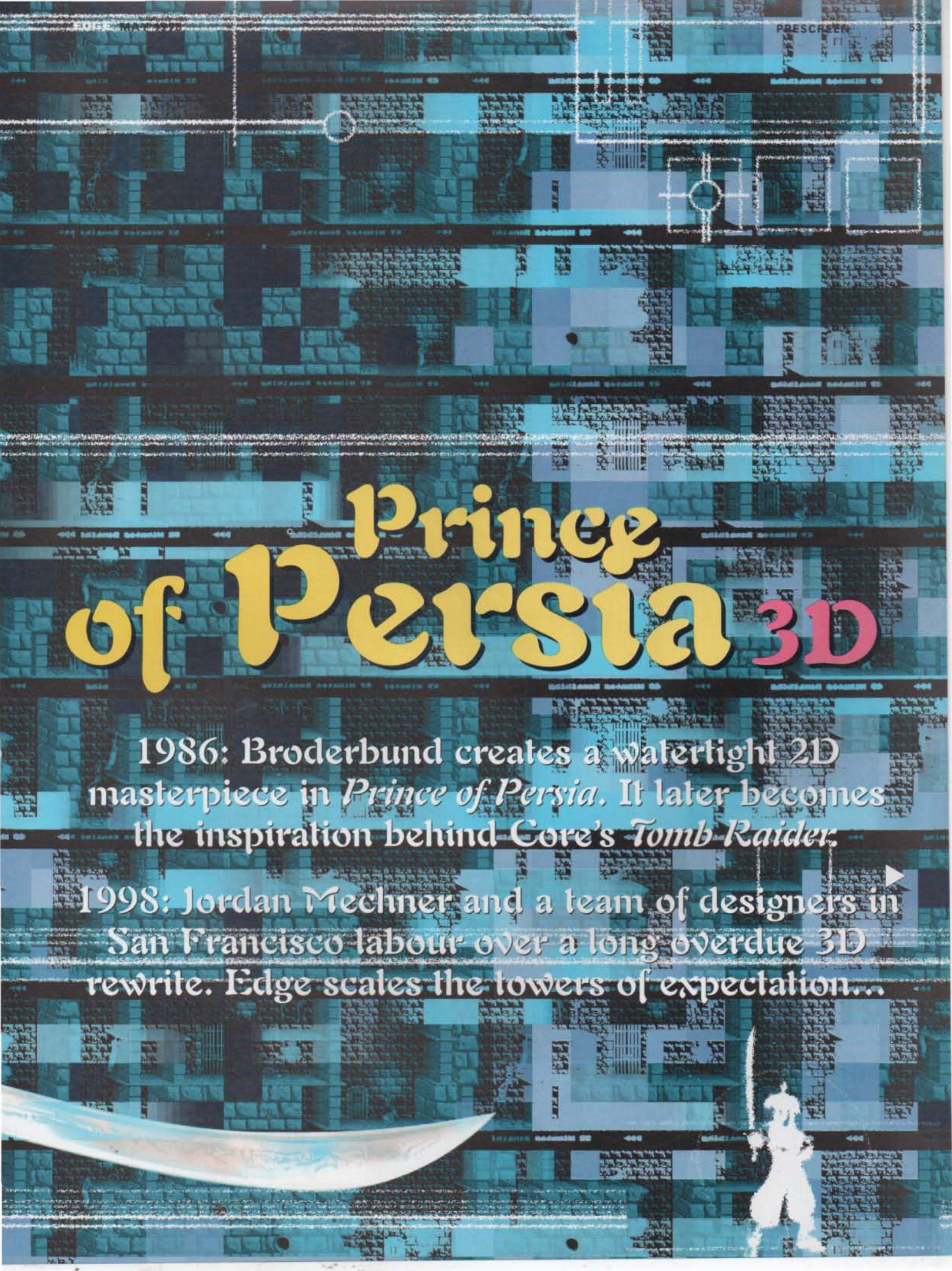












Prince of Persia 3D

1986: Broderbund creates a watertight 2D masterpiece in *Prince of Persia*. It later becomes the inspiration behind Core's *Tomb Raider*.

1998: Jordan Mechner and a team of designers in San Francisco labour over a long overdue 3D rewrite. Edge scales the towers of expectation...

Almost a decade ago, *Prince of Persia* set new standards for animation and gameplay. Refining techniques he had first developed while creating *Karateka*, designer Jordan Mechner combined rotoscoped animation with a truly cinematic vision and some of the most fiendishly clever traps and puzzles ever seen. A classic, *Prince of Persia* was like nothing else that came before it, influencing a generation of games that followed. Echoes can still be found in modern classics such as *Tomb Raider*.

It's been more than five years since the sequel, *Prince of Persia 2*, but the world won't have to wait much longer for the third instalment. 'About a year ago, I was talking with my boss, Ken Goldstein [general manager of Red Orb], saying we were sitting on the crown jewel of our entertainment portfolio,' says producer **Andrew Pederson**. 'I mean, the hardware is now at a point in which we can really do something that's worthy of the *Prince of Persia* legacy. And I finally got the resources to get the ball rolling.'

The result, *Prince of Persia 3D*, seems likely to inject the same kind of elegance into 3D gaming as the original did for 2D. Mechner is back, working with the Red Orb team as a design consultant, and he's co-authoring the story, which takes place shortly after *Prince of Persia 2*. Although the prince and princess from previous games are now married, there are rarely happy endings in computer gaming. It transpires that the sultan's evil brother Assan is furious, because the princess was betrothed to his son Rugnor. Assan has the prince beaten and thrown in the dungeon while he absconds to Rugnor's castle with the princess.

Events occur at the time in Persian history when the 'Arabian Nights' were written. 'The time period really lends itself to a broad range of backgrounds,' says visual designer **Chris Grun**, 'because there was so much war and internal strife – Islam was sweeping through Persia, so there was a lot of turmoil.'



Even the mighty Nintendo would be hard pushed to create game worlds as vividly coloured as these. The drama of *Prince of Persia 3D*'s scenery reflects the sense of high-adventure that players have come to expect from the series

Chris Grun also designed all of the game's characters. These include many more supernatural beasts than previous games in the series. 'A lot of the creatures I found were directly from myths,' he says, pulling volumes from a huge stack of source books. 'Weird, crazy-looking creatures and demons. One of the main influences that I look towards is Edmond de Lack and K Nielson, who did one of the definitive versions of the 'Arabian Nights.''

As for the core game engine, Red Orb, following recent PC trends, decided to buy in existing 3D technology, enabling it to concentrate on game design. But where other companies have plumped for proven engines like *Quake*'s or *Unreal*'s, Red Orb is working with some more unusual technologies.

POP3D's graphics system is a fusion of Numerical Design Ltd's NetImmerse rendering engine and Motion Factory's Motivate character animation and AI system. The job of integrating the two and modifying the development environment to suit the game's needs falls to 'chief technologist' **Peter Lipson**, formerly with Atari coin-op and Mindscape, and Carey Clutts, who worked for Autodesk on 3D Studio R4.

'We came from a variety of different backgrounds,' Lipson explains. 'So using some of Carey's contacts, we started looking at different partners we might work with. That's where NDL's NetImmerse package came from – Turner Whitted, who founded NDL, he invented raytracing. He's been doing this for a long time, and [NDL's] got a very nice, full-featured 3D package.'

Lipson claims NetImmerse is capable of handling both interior and exterior scenes, fogging, environment mapping, and a number of other special effects. *POP3D* will require a 3D accelerator, and NetImmerse supports Direct3D, OpenGL, and 3Dfx Glide.

Motivate's animation system is also well suited to the team's needs. Since fluid, realistic animation is a hallmark of the series, preserving that in a 3D environment could have proven tricky. 'We looked at motion capture extensively,' Pederson says, 'and basically decided not to use it because once you motion capture somebody and get the data, it's very



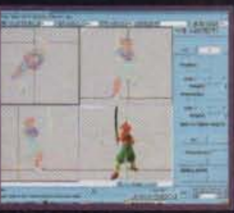


Producer Andrew Pederson (above) and the rest of the *POP3D* team are dedicated to creating an update worthy of the *Prince of Persia* moniker

The Making of a Prince

The Motion Factory's animation and AI system is being used to keyframe all of the game's movement. Character motion design and its implementation matches the rest of *Prince of Persia 3D* for attention to detail. By blending the Motion Factory's system with Numerical Design's rendering set-up, Red Orb can utilise the best parts of the two distinct tools









As the above image illustrates, players can expect a degree of action to accompany the adventure, although true to the original, combat isn't the focus of *POP3D*



difficult to manipulate. Instead, similar to the process that Jordan went through in rotoscoping the character, we're conducting a motion study. We hired a nationally ranked gymnast, who we're going to be videotaping from multiple angles, going through a variety of these moves.'

That tape will be digitised and used as a guide for Motivate's keyframing animation system. Motivate breaks actions down into simple movements, then uses an advanced form of inverse kinematics to smooth transitions from one action to the next. Movements can be combined so a running character can reach up to grab a passing object, for example.

This flexibility should please the eventual player, since, also in keeping with the *Prince* legacy, *POP3D* will be full of highly lethal traps and tricks, requiring dexterity to overcome. The responsibility for creating these falls to co-designers **Tom Rettig** (who worked on the music for the PC port of the original *POP*) and Todd Kerpelman. Although hesitant to give much away (cryptic allusions to something called a 'sphere buster' were quickly hushed), their enthusiasm is obvious.

'You've got to have the spikes, you've got to have the big slicing blades,' Rettig explains. 'These things are signature *Prince of Persia*, and also fun traps. But we've been talking about a number of new ones. One puzzle that Jordan had originally designed, but was too hard at the time, involved filling a room with water – which obviously is not a big deal now. We've got these rotating blades, kind of a variation on the slicer blades, but each has a visual distinction and also a different manner in which you have to navigate through them – you couldn't do that before.'

When not negotiating traps, the *Prince* is likely to be embroiled in unsavoury scuffles. While *POP3D* adds a few new swords to the princes' scabbard, as well as a bow, Pederson stresses that fighting is just one aspect of the game. 'We really refer to it as an 'adventure/action' game. We're seeing the ratio as being around 20 per cent action and 80 per cent moving through an environment packed with all the traps and surprises that *Prince of Persia* is known for.'

The watchword is simplicity. All the team members want the game's control scheme to stay faithful to the original's elegance. Todd Kerpelman puts it this way: 'We want to keep it simple. We don't want to turn this into memorising all the secret combos, memorising all these hit strings – that may be fine for some games, but I don't think it's appropriate for a *Prince of Persia* game.'

The team's dedication and love for the original *Prince of Persia* is clear. **Doug Carlston**, founder of Broderbund and chairman of the board, says the decision to green light the project was an easy one. 'I really felt like this was organic,' he says, 'It was a game that people wanted to work on. It was born because they wanted to do it.' E



Visual designer Chris Grun's work is 'Not Disney, not realistic, just *Prince of Persia*,' according to Mechner

The Road to Glory

Karateka

Release Date: 1982

Revolutionary sideways scroller with large animated characters and a scrolling backdrop, which Mechner wrote as a response to the gameplay of Broderbund's *Choplifter*!



Prince of Persia

Release Date: 1986

A hugely inspirational game, with detailed animation and lavish backdrops. Big-seller only after repacking and cross-liscensing to multiple plaforms.



Prince of Persia 2

Release Date: 1993

Mechner relinquished his programming role, working with a staff of 15, as creative consultant and game designer and introduced new elements like snakes, and more diverse locations.



The Last Express

Release Date: 1997

The Last Express, a murder mystery set aboard a moving train, was a giant creative leap for Mechner, combining his love of film and game design. Possibly ahead of its time



An Audience with Jordan Mechner

Jordan Mechner's modest body of work (*Karateka, Prince of Persia*, and *The Last Express*) belies its impact. By 1993, there was a version of *Prince of Persia* for almost every game system on the planet. Edge talks to the man who brought rotoscoping to the small screen





Jordan Mechner relaxes in his penthouse suite, looking out over San Francisco

Edge: How did you start out in games?

Jordan Mechner: I've got to take you back to 1986, when I just graduated from college. *Karateka* had come out and it was selling. All I wanted to do in high school was make computer games, and right out of college I was in this incredibly lucky position where I actually had a game that was selling. So I didn't need to do what everybody else was doing, which was find a job that would pay the rent.

Edge: The next game was *Prince of Persia*. Where did that idea come from?

JM: I guess the idea I started out with was very simply, to try to take it past *Lode Runner*, which was my favorite game at that time. There was another game that came out, *Castles of Doctor Creep*. It was a platform game like *Lode Runner*, but with these very clever Rube Goldberg-like traps. I wanted to do a game which would have that kind of logical, head-scratching, fast-action, *Lode Runner*-esque puzzles in a level-based game but also have a story and a character that was trying to accomplish a recognisable human goal, like save a princess.

Edge: Your games have a cinematic quality. Do you see film and videogames relating?

JM: I've thought a lot about this. Just as theatre is its own thing, with its own conventions, so is film, and so is videogames. And there is a way to borrow from one medium to another, and in fact that's what an all new medium does when it's first starting out.

Film, when it was new, looked like someone set up a static camera and filmed a staged play. Then the things that are specific to film – like the moving camera, close-ups, reaction shots, dissolve – all these kind of things became part of the language of cinema. It's the same with computer games. To take a long film sequence and play it on your TV screen is the bad way to make the game cinematic. But you can borrow from the knowledge that we all carry inside our heads of how cuts work, how reaction shots work, what a low angle means, dramatically, what it means when the camera suddenly pulls back.

Edge: The arrival of 3D makes all this much more achievable in games.

JM: Actually, 3D is a phenomenal opportunity because now you can put the camera down anywhere. In *Prince of Persia*, it was 2D and you had to put the camera far away, and look at everything in profile, and that's where the camera was for six hours. Now you can cut whenever you want because the whole world exists in 3D models.

Edge: Do you agree that designers are having trouble working with that 3D space?

JM: Yeah. Despite tremendous technological advances, 3D games are still in their infancy. Every new game brings new variations. There is usually some important advance there that somebody can look at and say, 'That's the way to do it.' And that gets drawn on in future games.

Edge: What do you see as the main difficulties with 3D games?

JM: I've played *Tomb Raider* a lot with my wife because she's got a good sense of direction. She'll say, 'Why are you going there? You've been there before.' [laughs]. My problem with all 3D games is that they're just too hard. I lose track of where I am, and there are so many controls at my fingers that I forget and never use them. With *Prince of Persia*, what I really tried to do, and I hope we can translate that into 3D, is make the controls very simple. Whereas in a lot of games, they're good once you get into them, but there's a wall that you have to climb at the beginning.

Edge: What did you think of *Tomb Raider*?

JM: Well, I didn't finish it [laughs]. But I enjoyed playing it tremendously.

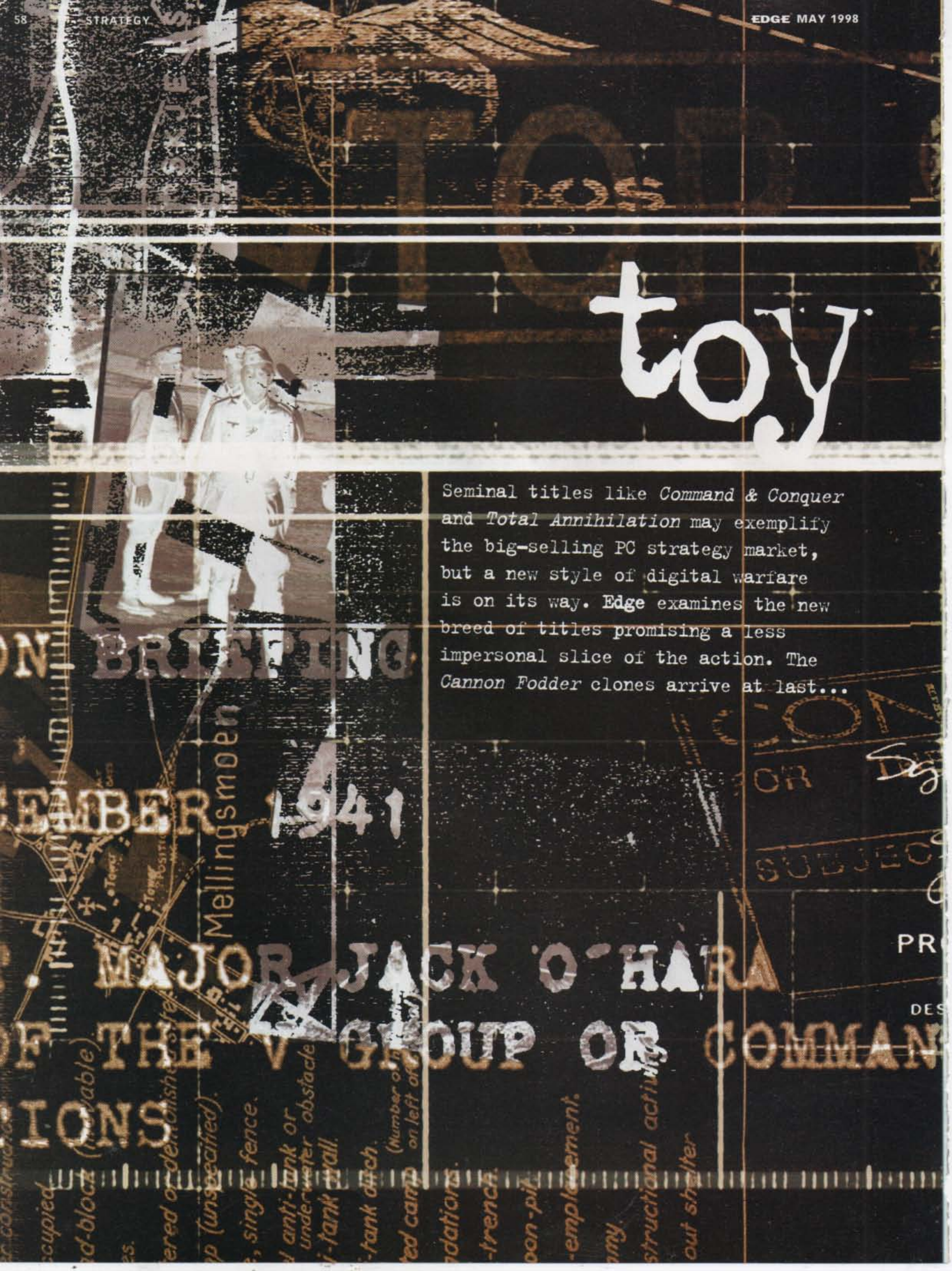
Edge: The designers at Core created it as a 3D version of *Prince of Persia*.

JM: Yeah, I noticed the spikes...

Edge: But the huge success of *Tomb Raider* is indebted to your own unique achievements with *Prince of Persia*...

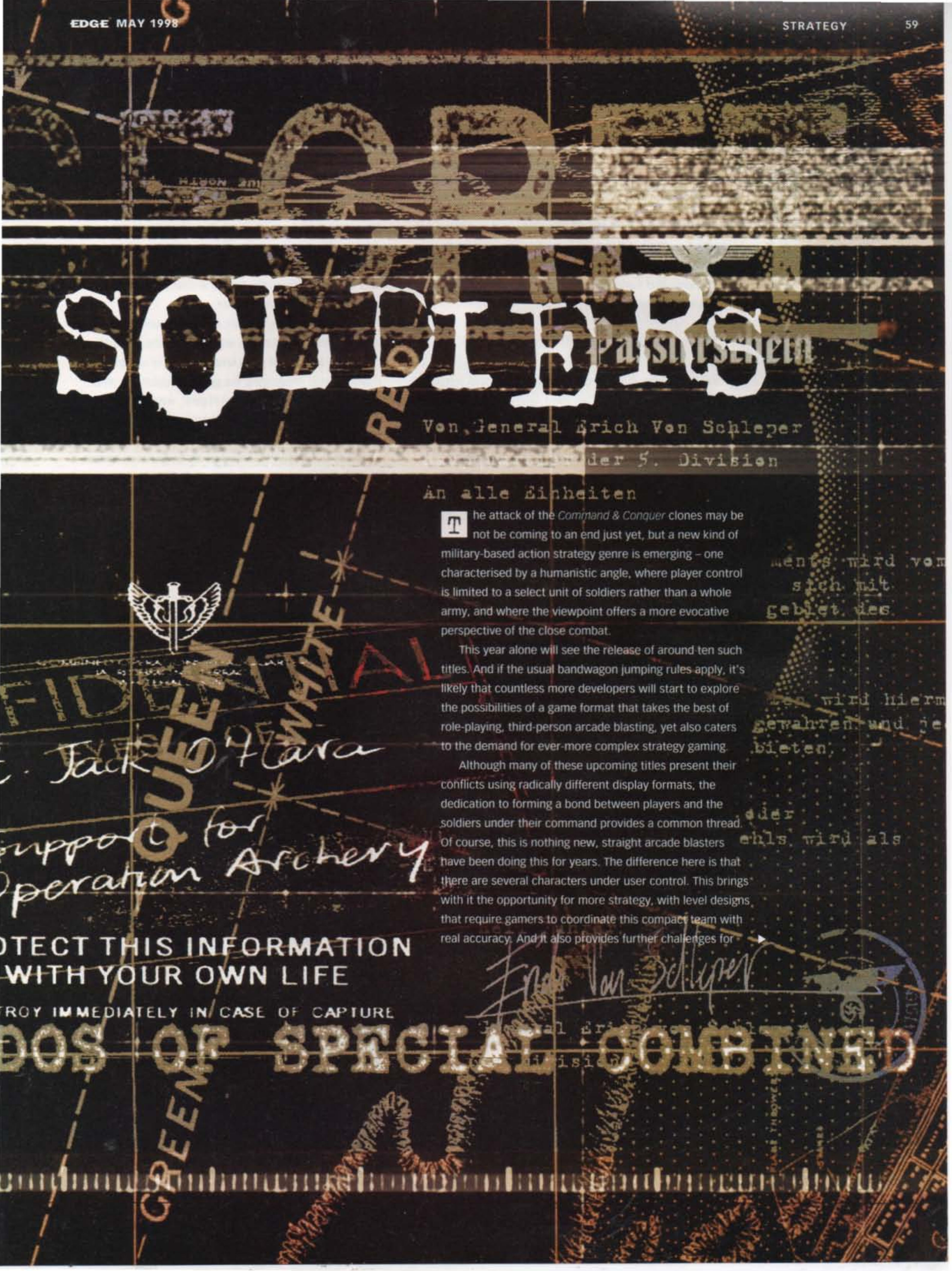
JM: No! *Castles of Doctor Creep* set the precedent for *POP*. We always think we're stealing, but what it comes down to is we borrow from everywhere: movies we've seen, books we read, games we've played, and real life as well. If you can merge all those elements into something coherent, and that captures people's imaginations, then you know you've done your job. And then you pass it on to the next fellow.

> '3D games are still in their infancy. Every new game brings new variations. There is usually some important advance there that somebody can look at and say, 'That's the way to do it."



toy

Seminal titles like *Command & Conquer* and *Total Annihilation* may exemplify the big-selling PC strategy market, but a new style of digital warfare is on its way. **Edge** examines the new breed of titles promising a less impersonal slice of the action. The *Cannon Fodder* clones arrive at last...



SOLDIERS

The attack of the *Command & Conquer* clones may be not be coming to an end just yet, but a new kind of military-based action strategy genre is emerging – one characterised by a humanistic angle, where player control is limited to a select unit of soldiers rather than a whole army, and where the viewpoint offers a more evocative perspective of the close combat.

This year alone will see the release of around ten such titles. And if the usual bandwagon jumping rules apply, it's likely that countless more developers will start to explore the possibilities of a game format that takes the best of role-playing, third-person arcade blasting, yet also caters to the demand for ever-more complex strategy gaming.

Although many of these upcoming titles present their conflicts using radically different display formats, the dedication to forming a bond between players and the soldiers under their command provides a common thread. Of course, this is nothing new, straight arcade blasters have been doing this for years. The difference here is that there are several characters under user control. This brings with it the opportunity for more strategy, with level designs that require gamers to coordinate this compact team with real accuracy. And it also provides further challenges for ▶

the developers, most notably fleshing out the abilities and characteristics of these soldiers and devising a control system that's workable in the heat of the battle. It's these elements that make this new breed of military game so fascinating and filled with promise.

FROM COMMANDO TO CANNON FODDER

It's possible to trace some of the game elements present in this latest crop of military endeavours right back to coin-op and computer games of the early '80s. Titles such as *Commando*, *Ikari Warriors* and Ocean's *Rambo* all used that familiar, forced overhead perspective to depict the closely viewed carnage, and in spirit at least have much in common with contemporary army movers and shakers. In gameplay terms, though, the story begins with Konami's coin-op and NES hit *Jackal* and, more obviously, cult Sega Mega Drive game *Herzog Zwei*. By attempting to appeal to console-owning wargamers, designer Technosoft hit upon a hybrid of arcade and strategy-based gaming that was later seen in Westwood's *Dune 2* and its more famous offspring, *Command & Conquer*.

But it was Bullfrog's *Syndicate* and *Cannon Fodder* (both released in 1993) that first explored the possibilities of a game design that put a small number of soldiers under player control, challenging the gamer to use these units as a genuine team. It's *Cannon Fodder*, with the more contemporary war theme and structured level design that can be seen as the forefather of the new breed.

Sensible Software's **Jon Hare**: 'To be perfectly honest, I didn't play any military games before and I haven't since. What I liked about *Cannon Fodder* was the way the strategy element worked with the action – it was a shooting game that wasn't a shoot 'em up. It's actually more like some strange kind of sports game. But then sport is based on war anyway – even the term 'offside' is a military one...'

'I think it's now proven that military games can be fun. A few years ago people would have scoffed at the idea of something like *Civilisation* being successful'





Polished graphics and impressive set-pieces make this SSI's most appealing strategy game to date. The soldiers gain experience and abilities, in true RPG fashion

SOLDIERS AT WAR

Developer: SSI
Publisher: Mindscape

Looking to the likes of *X-COM* and *Jagged Alliance* for inspiration, SSI has come up with something that aims to feel contemporary, yet retains the traditional turn-based system, with action points governing basic troop movement, machine gun fire, climbing into tanks, throwing grenades and more.

SSI's **Scott Evans** emphasises the way *Soldiers At War* offers a more strategic style of play, while still providing the luxuries of modern gaming, including a scenario builder, and support for up to four players over a network or the Internet. 'I really hope to see a fan base of the game develop who will build scenarios and make them available to other players on the Internet,' says Scott.

But it's the way players will bond with a small team, attempting to keep them alive through a series of 18 missions that will provide *Soldiers At War* with the necessary hook.

'Imagine being in a movie like 'Kelly's Heroes' or 'Where Eagles Dare',' enthuses Scott. 'The missions will take you from North Africa to the streets of Berlin. As you play and complete missions, your soldiers gain experience and their abilities on the battlefield subsequently improve.'

These missions also promise to offer much more than variations on the single close combat theme, with a range of objectives in keeping with those action movies quoted by Scott. 'Your squad may be assigned to take out a secret V2 rocket site, or destroy a transport plane at an airfield which is carrying secret documents, or rescue POWs, or just slug it out in gritty combat in which you must clear the map of enemies.'

Soldiers At War should provide an involving, narrative-led experience, though it'll be interesting to see how turn-based gaming is received in the current climate.





This turn-based wargame provides impressively varied missions, eventually leading the troops right into the heart of Germany

The game was inspired by the developer's own game *Mega Lo Mania*, where hordes of soldiers ran around the landscape without direct player control. Turning that idea on its head, then coming up with a good control system provided the spark. The result was fast and obviously far removed from reality, but possessed with enough subtleties to make lateral thinking as crucial as mastery of the point-and-click interface. Even design elements like water, which the soldiers can wade through, but can't use their weapons in, are crucial.

Sensible has considered returning to the genre with a *Cannon Fodder 3*, but has decided against it for the moment. '*Cannon Fodder* is a good game about war. It doesn't mean we're a wargame specialist, we're just good at games.' Jon states.

REALTIME ACTION

What's surprising is that few attempts to build on the ideas pioneered by *Cannon Fodder* followed. Only Electronic Arts' quirky *Seal Team*, Sir Tech's *Jagged Alliance* and Microsoft's *Close Combat* series have taken tentative steps. It's taken a full four years for developers to really latch on to the idea of troop-based action wargaming.

'I think part of the reason is because with advances in 3D it's possible to present nice environments for this sort of game now,' says **John Cartwright** of Corrosive Software. 'There just wouldn't be any point in doing another **Cannon Fodder**-style game in 2D.'

John also concedes that both publishers and games are more receptive to strategy games since the success of *Command & Conquer*. 'I think it's now proven that military games can be fun. A few years ago people would have scoffed at the idea of something like *Civilisation* being successful. I don't know if it's because gamers are getting more intelligent, or simply that they want to spend more time on a game. If they've just spent two thousand pounds on a PC, that's pretty understandable.'

Empire's **Ben Wilkins**, designer behind the company's upcoming Napoleonic wargame also believes *Command & Conquer* sparked off the current trend, with gamers and



Released at the end of '93, Sensible Software's *Cannon Fodder* pioneered a simplistic, but strategic, arcade-style





With details like these tunnels and ruins, *Commandos* clearly aims to engender a personable strategy gaming experience

COMMANDOS: BEHIND ENEMY LINES

Developer: Pyro Studios
Publisher: Eidos

It's no surprise that members of Spanish development house Pyro Studios are fans of *Cannon Fodder* and, to a lesser extent, *Command & Conquer*, but the team claims it was Hollywood rather than Westwood that provided the inspiration for *Commandos: Behind Enemy Lines*. Echoing classics like 'The Dirty Dozen', 'Devil's Brigade' and 'The Guns Of Navarone', this gritty take on World War II adopts a more stylistic approach than its counterparts, with character-based action emphasising covert rather than confrontational action.

'Each Commando has specific abilities and skills, so the player will have to control them separately from the rest in order to perform certain things,' says **Mercedes Rey**. 'For example, only the spy will be able to dress like a German soldier and infiltrate the enemy lines, while only the diver will be able to dive. Obviously other actions are common of the commandos, so the player is able to control them in a group; like moving, crawling and shooting.'

The interface caters for both direct single character and team-based control, enabling the gamer to split the group up as and when necessary. Mercedes estimates that around 75 per cent of any mission will involve the direct system.

Despite the more thoughtful mission structure and individual character roles employed in *Commandos: Behind Enemy Lines*, Mercedes is keen to emphasise that the weapons abilities will be just as important as clever strategy. The ultimate aim is to create a game world backed with the architecture, vehicles, and situations of the era, ultimately 'really giving the player the sensation of taking part in a World War II Commandos operation'.

Unsurprisingly, there won't be a hex map in sight.





The various theatres of war offer great visual diversity

The *Ikari Warriors* coin-op may be a simplistic shoot 'em up, but the themes and viewpoint have undoubtedly influenced many action strategy game developers

developers looking for something deeper. Much of the stigma has also been removed from wargaming now that real-time action is taking hold. People are more receptive to traditional wargame themes if the battles unfold before their eyes. 'Real-time wargaming gives you something you can't do on a tabletop,' believes Wilkins. 'It gives strategy something new, although there is a certain amount of compromise when going down that route.'

Although most of these titles are being developed solely for the PC, both publishers and developers now approach things from a console angle. John Cartwright argues that publishers are always keen to aim for the lowest common denominator, so as not to rule out the possibility of versions on other platforms. The PlayStation market wouldn't put up with turn-based systems, hex maps and a small graphic to represent an army of men.

TURNING THE TABLES

But that still doesn't explain why the new military games are breaking away from the science fiction angle in favour of contemporary war themes. It can't be a reflection of general cultural tastes. Hollywood hasn't produced a 'Boys' Own' style of war movie for decades. 'Maybe game trends are opposite of those in films,' says Cartwright. 'There are an awful lot of science fiction movies right now.'

'After years of film-makers scouring every major and minor conflict in search of inspiration, it may be that they're finding it hard to unearth a suitable subject matter,' offers **John Wigham**, team leader of Interactive Studios' *Wargames* project. 'Games have far greater flexibility in the mechanics of exactly how the product deals with the subject.'

Ben Wilkins suggests it may simply be that publishers are looking for new niches. 'There are only so many times you can do a science fiction game,' he reasons. It may be that as gamers mature, they want something more than a screen full of little green men. 'It's very hard to create a believable sci-fi arena, whereas if something depicts historical or contemporary war, everyone already has the cultural baggage. They bring their own background knowledge to the game.'

Of course, contemporary war themes were already popular, it's just that only the dedicated wargamers knew





The use of a full 3D engine provides the opportunity for dynamically moving camera views, though the depth of field can be restrictive

ASSAULT KORPS

Developer: Corrosive Software
Publisher: TBA

Having split from Eidos, Corrosive is currently in negotiations to find a new publisher for this promising polygon-based action strategy title, now due around the end of the year. It's the latest twist in a development cycle that's seen the game design evolve from strategy to action-based as a result. 'It's now heading towards a 3D *Commando* style of game as much as anything else,' says **John Cartright** at Corrosive, adding that depending on who ends up publishing the game, that spec could well change again.

One of the most fundamental changes has been the switch from a mouse-driven interface to a direct control method. The original offered much scope for waypoint setting, and user controlled cameras, but now pans and tracking are likely to be semi-automated. The idea of putting several troops under player control will thankfully remain, as well as the zoomed-in view of the game world.

'If you look at *Command & Conquer* games you don't get to see much,' opines John. 'The view in ours is a bit more personal, we have better models and it allows us to really show the action.'

He also believes that putting around eight troops – rather than a whole army – under player control adds more tension, the survival of each one can make the difference between success or failure. This is something *Assault Korps* definitely shares with *Cannon Fodder*, though John doesn't believe it was really much of a direct influence, particularly given that *Assault Korps* began life with a far stronger strategy element.

'We're no longer trying to take things too seriously. It's only military in terms of the weapons, we're not trying to do a simulation. Some military games are too far up their own arse, basically.'





Players now guide the troops through these impressive environments using direct, rather than point-and-click control

about it. With the arrival of real-time action and attractive 3D visuals replacing the representational style of tabletop-derived software, military gaming now has a far broader appeal. Then, as John Wigham says, 'Once attracted, it's the immediacy of the new games that is holding them... I think everyone would agree it is so much easier to hold the progress of the battle in your head when it's all happening right in front of you, than when you have to remember what each unit is doing and worry about what you can and can't achieve in each turn.'

UNKNOWN SOLDIERS

There's also the trend away from large-scale battles to consider. Directing armies of vehicles and infantry can be an amazing experience, as *Command & Conquer* has shown, so why this move towards a more low-key view of war?

It may be an attempt to address the pitfalls inherent in the very design that's made strategy games so popular. Despite the universal appeal of real-time gaming, and the lure of commanding a massive army, there's no getting away from the impersonal, and often ironically, un-strategic nature of the gameplay in *C&C, Red Alert, Dark Reign* et al. More often than not players simply gather a huge force and send it off into the fray. There's neither the flexibility in the control system nor the time to formulate precise strategies. A war game offering more control over fewer units is a logical reaction to this.

'From both an action and a strategic point of view, a limited number of units gives the player more control, and consequently opens up more possibilities in both fields'

As **Mercedes Rey** of the *Commandos: Behind Enemy Lines* team says, 'From both an action and a strategic point of view, a limited number of units gives the player more control, and consequently opens up more possibilities in both fields. Having just a small number of units it seems logical to offer individual control over them.'

That several of the developers featured here are opting for direct control either exclusively or as an option is a further interesting characteristic of this new genre, and something that has the potential for wider appeal. Taking control of a soldier also brings everything full circle, away





Lacking the troop-level focus, *Wargames* merits inclusion thanks to its strategic bias and console-like presentation

WARGAMES

Developer: Interactive Studios
Publisher: MGM Interactive

Of all the games spearheading this new wave of military action, *Wargames* is the one most obviously touched by the hand of Westwood, with that familiar macro viewpoint and indirect control style mirroring the *Command & Conquer* and *Red Alert* format. 'We're working on the principle that if it isn't broken, why fix it,' says team leader **John Wigham**.

Instead it's left to the game engine to earn *Wargames* the next generation tag, with a versatile 3D system and free (rather than tile-based) unit movement, giving it the necessary edge.

John concedes that *Command & Conquer* and *Warcraft 2* contributed to the initial game design. 'We were trying to take the genre that step forward,' says John, 'the completely three dimensional nature of our game being one of the biggest contributing factors in this.'

This polygon-built approach has enabled Interactive Studios to implement a number of pleasing features, not least the depiction and effect of real-time weather effects, and a completely free-roaming camera system. The likes of *Dark Reign* and *Total Annihilation* have also sparked ideas during development, though John does stress that some titles appear to have forgotten that it's hard to be seriously strategic when everything is happening at breakneck speed.'

Consequently, *Wargames* will slow things down a notch, challenging the player to try out new strategies rather than simply amassing as much firepower as possible, before launching an attack. 'The most important thing for us is the content of the missions... we have mission types ranging from escort duties to seek and destroy, search and rescue, interdiction, protection and demolition tasks. We are offered extensive flexibility by our story line, and we use as much of it as we can.'





Most post *Command & Conquer* titles use a tile-based system for unit movement and route-finding. *Wargames* uses a more precise, pixel-based system

from the wargame format of giving orders and back to the original *Commando* and *Ikari Warriors* style of action game.

Giving players command of a small team also brings role-playing elements to the field, the extra visual detail and the need to keep each single soldier alive taking things away from the world of representational, lead figure, style counters. These are soldiers that look, and behave like the real thing. As Corrosive's John Cartwright says, 'Whereas battles like *Command & Conquer* were very anonymous, in *Cannon Fodder* you actually cared about the troops.'

Capitalising on this, developers are introducing extra character attributes and abilities for the onscreen fighters. Not only are the same troops carried through from one mission to another in titles like *Soldiers At War*, they even gain experience along the way. *Commandos: Behind Enemy Lines* features soldiers trained to handle very different roles, while in *Jagged Alliance II*, each mercenary has a range of statistics, governing everything from morale and leadership qualities, to sniping ability and medical expertise. These soldiers are as much RPG characters as anything. It's little wonder that players bond with them.

THE FUTURE OF WAR

Already the possibilities of 3D are being explored further, Zombie's *Spec Ops* takes the viewpoint right down into the battlefield. This is a game so coin-op like in its presentation that it requires a 3D accelerator, yet is rooted in wargame territory, it features small numbers of soldiers and enough control for effective, genuine army ranger strategies.

Whatever the graphical advancements, this immersive evolution of the action wargame looks set to stay. The hybridisation of real-time wargaming, directly controlled arcade action, and party-based role-playing strands looks likely to please gamers from all corners, and ought to allow for enough permutations to sidestep the clone problems that have plagued the *Command & Conquer* format.

The contemporary war angle may pal after a whilel, but the fascination with war will undoubtedly continue. As Jon Hare says, 'Most of our competitive instincts are based around combat.' And what do computer games appeal to, if not those competitive instincts? So long as there's a demand for videogames, the future of the military game is assured.





The fog of war clouds the strategic options available in Ubisoft's *Army Men* (above)

ARMY MEN

Developer: Studio 3DO
Publisher: Ubisoft

If *Assault Korps* is the game to adopt *Cannon Fodder*'s non-technical approach, it's *Army Men* that pursues the idea of depicting war manoeuvres in a cartoonish manner, using the theme of toy soldiers as the basis for the real-time conflicts. As with many great ideas, it happened pretty much by accident.

Nick Earle, executive producer of *Army Men* explains: 'When we started thinking about doing a military game, we were playing a lot of *Return Fire*. We all loved the game, but yearned for better enemy AI and the ability to give orders to intelligent squads. So, the first design was an action strategy game that would give us this depth, similar to the early Sega game, *Herzog Zwei*.'

While planning the missions with plastic soldiers, the team hit upon the idea of basing the game around toy soldiers rather than attempting to simulate the real thing. Almost every aspect of the game evolved from that one concept. 'It was like the proverbial light going off,' says Nick.

The designers set about recreating all the classic poses, and authentically plastic weapons and vehicles – right down to tanks with hollow underbellies. Like *Assault Korps*, the emphasis has also shifted away from a macro-level control system to something a little more involving. A troop deployment system has been replaced by a design where players get to control the 'Sarge', who provides the focus for the action while at the same time enabling gamers to give orders to other soldiers.

While the other military titles, including those featured here, attempt to recreate the claustrophobia and tension of real close combat, *Army Men*'s inspired mix of real strategy with backyard childsplay may yet pay dividends.





Only the player (represented by the Sarge) can drive vehicles. Tanks, jeeps and even boats are at their disposal



Multiple viewpoints are provided. Though the visuals suggest an arcade adventure, the multi-character format is unmistakable

UBIK

Developer: Cryo
Publisher: In-house

The application of squad-based control to an adventure game format is the inventive notion behind Cryo's *Ubik*. Based on the story by Philip K Dick, author of the original 'Blade Runner', it breaks away from the pack in a number of ways. A cyberpunk milieu provides the opportunity for unusual character abilities to compliment the gunplay. Cryo promises to 'balance mindpower with firepower', with soldiers for whom psychic abilities are as crucial as mastery of weapons and explosives. Players progress through 15 levels set in two universes – one a futurist environment, the other is pulpish.

Although primarily a narrative-based game – depicting industrial espionage in 21st century New York – Cryo is working on a multiplayer mode, which should emphasise the arsenal of 50 weapons and 48 psychic powers available. Hopefully characters in multiplayer games will evolve, as they do in the story mode.

The action is fully real-time, and as befits a game focusing on small units and close range combat, the viewpoints are mostly dollied right in, though instead of polygon-based 3D, a number of static camera positions are used with 3D motion-captured character laid on top, in the manner of *Resident Evil*.

With luck, Cryo will blend character progression and tactics with the lifelike team dynamics strategy fans are starting to demand.





A range of onscreen menus give access to more complex character commands. The character selection system will be familiar to *Command & Conquer* aficionados







The *Alliance* sequel profers a more detailed isometric viewpoint, with far better character detail and a greater range of moves

JAGGED ALLIANCE II

Developer: Sir Tech
Publisher: In-house

Although the original *Jagged Alliance* enjoyed only limited success in the UK, it did garner several awards from strategy specialists, and did much to bridge the gap between *Cannon Fodder* and the upcoming titles examined here. Now Sir Tech is pushing hard to improve both technological and strategic aspects for the sequel.

First and foremost of these improvements is a new constructed graphics engine, with real-time lighting (including support for both day and night missions), true 3D line-of-sight and much improved character representation all featured in the isometric scrolling landscapes. A real-time mode will also compliment the standard turn-based game, the new mode using a similar system to the other titles feature here, with the player taking control of just one soldier at a time. However, it'll be possible to switch at will between any of the six in the unit, as well as setting AI parameters for the other members.

The use of mercenaries rather than loyal soldiers will once again be utilised, with players hand-picking a team and kitting them out ready for a story-led series of adventures that has the mercs attempting to reverse a coup.

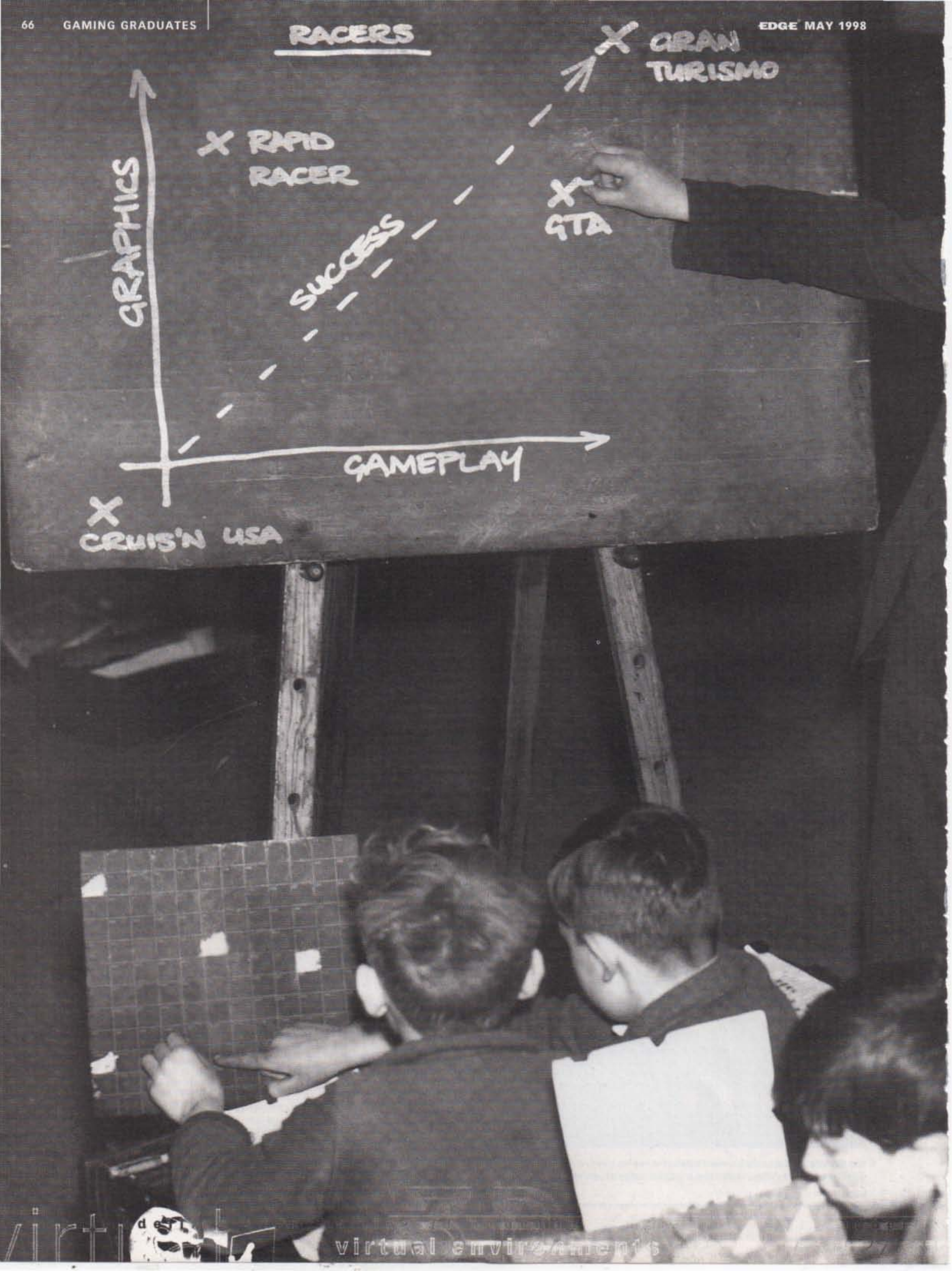
'You can have up to twenty mercenaries on your team', says Sir Tech. 'Up to six mercs can be controlled at once. The other team members can be assigned tasks such as guarding, repairing items, healing themselves or other mercs, training civilians, sleeping and more.'

Although action based, Sir Tech is keen to add as many authentic elements as possible, working in role-playing elements such as non-player characters. With subtle variables greatly affecting the balance of play, and a design catering for both action and tabletop-gaming camps, *Jagged Alliance II* may well become one of the leading lights of this new genre.





Jagged Alliance II's adoption of role-playing techniques even extends to NPCs


RACERS
GRAN TURISMO
RAPID RACER
GRAPHICS
SUCCESS
GTA
GAMEPLAY
CRUIS'N USA

Gaming Graduates

Ever since games programming uprooted itself from its humble bedroom foundations, a skills shortage has existed in the videogames industry. But finally it seems the higher education sector is doing something about it. **Edge** enrols at the colleges investing in the future of interactive entertainment...





virtual environment

The British games industry is booming. Developers are crying out for fresh, talented staff – yet with its anti-corporate image and hedonistic end product, a career in coding has rarely been taken seriously by prospective students. Until recently, selecting a game design course on a university application form was impossible.

attracting students – and skilled designers from other industries. Happily, universities are embracing the business of making games. Today, if you want to go to a British university and learn how to make computer games, you can.

Focus on the future

Some degree courses have featured a few of the basic skills required to make computer games: C programming, artificial intelligence or even 3D modelling and animation, while in recent years most of the better art colleges have run

'We'll be putting a very flexible programme in place, and the way in which it will work will dictate that beyond the core modules, students will need to undertake other modules, so they'll take what interests them'

Without more specific training, senior industry figures believe the shortage of talented manpower can only increase. Games are getting more complex – they require the work of trained physicists, mathematicians, teams of artists and professional musicians. This, combined with their growing bankability, has reversed the status quo overnight.

Since its inception, **Edge** has been approached by people looking to get jobs in the games industry. The magazine now finds itself increasingly asked for advice on

new media courses (slanted towards the once brave, but now imploding world of multimedia). But crucially, the higher education sector is being led by the likes of the University of Abertay in Dundee and Bournemouth's National Centre for Computer Animation, and supported ably by the likes of Teesside University and the University of Derby in fashioning a number of undergraduate and postgraduate courses that teach at least the basics of all the major skills needed by would-be games designers. Their united aim is to equip graduates with a well-rounded grasp of the technical, artistic and even teamworking elements of games design.

The time is now ripe to take a closer look at what these courses offer, how they vary, how genuinely useful they are, where they might go in the future and crucially, what the industry thinks of them.

Jessie Lo, a Malaysian student at the University of Abertay Dundee tries out VR

Course credentials

Universities still exhibit an element of coyness about slipping the word 'games' into the title of their games-specific courses, but even this is changing. The University of Abertay in Dundee offers a BSc (Hons) in Games Technology and Virtual Environments (plus a Masters in Software Engineering), Bournemouth University's National Centre for Computer Animation (NCCA) offers a games-slanted Masters in Digital Media, the University of Teesside offers a Masters in Computer-Aided Graphical Technology Applications (CAGTA for short) and the University of Derby is currently setting up a BSc (Hons) in Creative Computing. Middlesex University is another establishment (featured here) shifting its focus towards the gaming world by adding a Net Yaroze programming module to its BSc (Hons) in Computer Science.

University of Abertay, Dundee



Course: BSc (Hons) Computer Games Technology and Virtual Environments

Duration: four years (three years ordinary)

Qualification requirements: decent school qualifications which must include mathematics

Subjects covered: computer games, VR, programming, software engineering and applied mathematics

Projects: participation in group project, personal thesis and a selection of games and/or VR-related studies

Number of places: the course starts in September 1998, but the university expects about 20 to 30 participants.

Course: MSc Software Engineering (games and Virtual Environments)

Duration: 15 months

Qualification requirements: a computer-based degree

Course structure: split into three semesters – one taught, one combined taught/project and a research thesis

Number of places: 30

Companies linked to the courses: DMA Design, VIS Interactive, Virtech Systems, VR Solutions, GEC-Marconi

Course head Dr Ian Marshall says: 'We see ourselves providing vocationally strong, industrially relevant degrees. We try to get students involved with games companies at an early stage – it's easy to describe the theory, but it's only when you're out there that you find out what the practice is like.'

DMA's Dave Jones says: 'I've bugged the university of Abertay to offer such courses for a few years. We have to offer on-the-job training, because the games scene is very specialised – you have to be highly skilled to make the grade as a programmer. It requires knowledge you won't get from a computing degree. There would be a huge market for graduates trained in this area.'



Dr Ian Marshall

Software and hardware includes: *3D Studio Max, Caligari Truespace, Corel Click 'n' Create, Borland/Microsoft C/C++*, high-end 3D-accelerated PCs, Sony Net Yaroze, Datagloves

Key course personnel: Dr Ian Marshall, head of the School of Computing; John Sutherland, lecturer in Virtual Environments

Contacts: Julie McEwan, Information and Recruitment Office: 01382 308080

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software animation

modelling

animation animation animation animation

Research and development

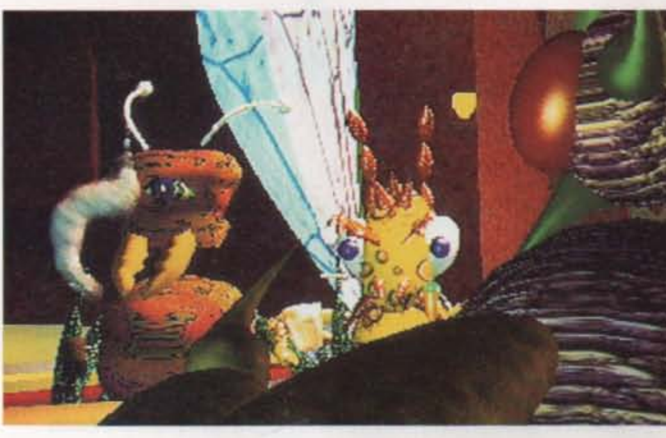
Metaphorically speaking, the worlds of computer games and academia have only just exchanged pleasantries and shaken hands. But they are both starting to turn their thoughts to research which could push back the expanding boundaries of computer games design. Certain elements of the games world, it must be said, do already have links with academia – artificial intelligence being the most obvious example. But what can we look forward to?

The University of Teesside's **Suresh Keswani** isn't happy with the current status quo: 'At the moment, games developers see students as cheap labour – they don't have the financial slack to take on a student to work on a project which might or might not be useful to them.'

The NCCA's **Peter Hardie** – who specialises in creating virtual reality rides (including one called 'Mission to Mars', commissioned by NASA and currently touring the US), isn't happy with the funding available to him, pointing out that: 'In America, companies can donate hardware and software and get tax relief. They can't do that here.'

It's easy to imagine the sort of research which could take place if some sort of infrastructure was set up. **Dave Cook**, for example, has been giving some thought to the matter: 'What interests me about the games industry is that it is still insisting on designing engines per game. I think a lot of good academic research into games engines needs to be done. We could research areas like parametric tools for gaming – where you tell a game character to walk, and it does.'

DMA's **Dave Jones** doesn't agree with Keswani that developers don't support academia closely enough: 'Maybe he's talking about large R&D projects, not many industries want to spend much on R&D, but the Scottish Games Alliance has helped us up here. We're a large developer and, part of the job of our head of research and development is to make links with universities.'







Work by students at Bournemouth National Centre for Computer Animation, which has links with Psygnosis and Rare

Sensibly, the individual courses claim differentiated focuses which aim to cater to students' specific interests while encouraging valuable links with a games developer to be formed. For example, **Dave Cook**, senior lecturer on the University of Derby's putative Creative Computing degree, says of the course: 'We'll be putting a very flexible programme in place, and the way in which it will work will dictate that beyond the core modules, students will need to undertake other modules, so they'll take what interests them.'

Suresh Keswani, of the University of Teesside, adds about his MSc CAGTA course: 'Its main feat is that it straddles the educational divide between technical and creative skills, whereas most courses channel people to be either techie or creative. The companies like this profile because they often ▶



The Computer Science Graduate

Name: Yinch Chien Yeap

Company: Pure Entertainment

'I did a software engineering degree at Imperial College, London – a 4-year MSc. About five per cent of the stuff I learnt was actually useful. The trouble is, when you're studying, you don't know what that five per cent is. You always end up getting the specialised skills working for companies. For example, I've had to learn three different operating systems. The first company I joined was a multimedia one, programming high-level stuff in *Director*. Now I've moved to the guts of the N64. Nothing you study can prepare you for that.

I don't think I'd have liked to have done a focused computer games course. I think that trying to get exactly the right skills for working in the games market is a moving target. Here, all the programmers have degrees, mostly in computing – it's company policy. But I know someone who works at Probe, and of about 50 programmers, there are only two graduates among them.'

National Centre for Computer Animation, Bournemouth University



Course: MA/MSc Digital Media

Duration: Four terms

Qualification requirements: Either Fine Arts/graphic design or a computer science/physics/maths degree

Course structure: First three terms are taught, leading up to postgraduate Diploma. First term includes animation project; second term includes group project; third term is determined by students; fourth term is a ten-week long supervised project

Companies linked to the course: Psygnosis, Rare

Course tutor Peter Hardie says: 'Nine years back, we started an undergraduate Computer Visualisation and Animation course. In the last two to four years, we've seen 50 per cent of the students leaving it end up in the computer games industry. We introduced new courses last September, diverging Masters students into three streams: computer animation, digital entertainment and games, and digital special effects. We aim to



Peter Hardie

produce excellent graduates who know the games industry from both the art and animation sides. It's our first venture trying deliberately to target people in this way – from our point of view, the real expansion is in 3D interactive games. This has introduced new techniques for us – normally we have thousands of polygons, and now we're having to do the polygon-reduction stuff.'

Software and hardware includes: *Softimage*, *Alias/Wavefront*, Silicon Graphics hardware, Sony Net Yaroze

Key course personnel: Professor John Vince, Course tutor Peter Hardie

Contacts: Sue Gemmill, 01202 595437



virtual environments
virtual environment

Net Yaroze

Sony's Net Yaroze has found its way into a few universities, which seem to appreciate its qualities as a low-cost yet relevant games programming tool. The games side of the academic world has certainly embraced it. The University of Derby's **Dave Cook**, says: 'I think Sony has been successful with Net Yaroze because it's offering it at a reasonable price. When you're buying specialist tools, you really have to justify them over a broad area.'

Middlesex University's **Peter Passmore** adds: 'Games companies seem to be treating exposure to the Net Yaroze with healthy respect. From their point of view it uses a subset of the development libraries, but it's a proper subset.' Whether other universities – or even schools — will follow Middlesex's lead and, via the Net Yaroze, add a games element to their mainstream computer courses remains to be seen. But the machine is cheap enough to give individuals a taste of games programming, and could well fuel an amateur programming boom reminiscent of the days of the ZX Spectrum and its ilk. In the meantime, **Edge** still awaits the first killer Net Yaroze game.



The Games Graduate

Name: Paul Munro

Company: VIS Interactive

'I did an MSc CAGTA at Teesside University, after taking a BA in Product Design at Northumbria University. It was useful – more than anything, it gave me a new career direction. The course provided me with a general overview of the whole computer graphics area, and it was very useful coming into contact with the technical side.

Being at CAGTA, you can go on to post-production, film or games. Because it wasn't totally games-specific, there were things I had to learn when I came to VIS, such as how to animate specifically for the games industry. I now work as a production artist doing character animation. But I guess the course gives you the basic tools. For example, I'm using *Alias* here, and I used it and *Softimage* at Teesside. That's probably the biggest bonus. I definitely think the course was worthwhile.'



discover that they're getting two bodies for the price of one; someone, say, who can write *Softimage* plug-ins and do animation at the same time.' The NCCA's **Peter Hardie** comments: 'The students are the ones who have been playing the games. Once we get a reasonable number installed on the courses, we expect the ideas to come from them.' Flexibility, it seems, is all. This can even extend to selection procedures – many of the postgraduate courses will take on students with either an arts or science background, and Teesside's Suresh Keswani even says: 'We sometimes accept students with no degree but relevant prior experience on our MSc CAGTA course.'

Such statements neatly counter the first criticism aimed at vocational courses – that students might find that they're simply not cut out to perform the specialised skill they've set off to university to acquire. The couses should maintain a flexibility which would convince individual companies that they're not going to get graduates who are set in one way of working. This will prove essential in the technologically fast-moving world of games which constantly throws up new programming environments, operating systems and modelling packages that require new skills.



Middlesex University's BSc in Applied Computing includes specific options in game design. The graphics option is also popular (above)

Hopes and reality

It hasn't been easy for universities looking to get games-oriented courses off the ground. Surprisingly, funding isn't generally cited as the problem. Finding

University of Teesside



Course: MSc Computer-Aided Graphical Technology Applications (CAGTA)

Duration: 12 months

Qualification requirements: Either a technical or creative degree, plus keen interest in computer graphics

Number of places: Approximately 35

Course structure: Stage one: creative design and animation, design principles, high-level programming, graphical computing environments and graphical mathematics. Stage two: four modules from a wide choice including TV post-production, multimedia and VR. Stage three: a project.

Companies linked to the course: VIS Interactive, Reflections, Bullfrog, Software Creations, Aerobel Defence Technologies, Superscape

Course tutor Suresh Keswani says: 'We aim to produce students who see themselves differently after the course. Computer graphics is a subject that is so technical and creative that successful practitioners must be renaissance people. We like to work across the spectrum as much as possible. We also started an undergraduate programme three years ago, BSc Visualisation, and we have expanded it to create a BA in Creative Visualisation, both of which include modules in design and programming.'

Suresh Keswani

Software and hardware includes: *Softimage*, OpenGL, *Alias/Wavefront*, SGI Indys, two SGI Onyx Infinite Reality supercomputers.

Key course personnel: Suresh Keswani, course tutor: 01642 342671
Matthew Holton, modular visualisation scheme tutor: 01642 342600
Hilary Reynolds, administrator: 01642 342639

software animation

animation animation animation animation







Students from the University of Derby's visualisation programme show off some of their acheivements (left and above, top)

the teaching staff manpower does seem to be tricky, however. Despite its good intentions, the University of Derby encountered similar problems as Dave Cook explains: 'We were hoping to run two games-related programmes starting this year, but unfortunately we were told to hang on for a year. It's a logistical problem, we need the right staff in place. We run strong networking and AI modules, and it's a case of where do you prioritise?'

Suresh Keswani feels that he doesn't get enough backup from the games community: 'We find that the computer graphics industry, from an educational perspective, is a new industry. Games developers tend to be small companies,

'The people who leave our courses have the ability to produce reliable, robust interactive software... [videogaming] is poised to overtake the film industry'

so tend to be less organised about dealing with academic colleagues and new projects. This isn't the case in the US, where big companies have longstanding relationships with the universities for internships.' These gripes, surely, stem from the fact that it's still early days for the games academia. Games publishers do have a degree of financial leeway far beyond their developers and Keswani believes that if they reinvested in their developers, with an eye on the long-term, and those developers then got together with the higher education sector, the research benefits could reap rewards. The University of Abertay and DMA, with which it has a close relationship, both cite the establishment of the unique Scottish Games Alliance, a government-funded development agency, as a helpful factor in bringing the games and academia worlds closer together.

More manpower

As gameplay and graphics continue to make remarkable progress, with games like *Tekken 3* and *Battlezone* pushing back the ▶







Graphically, projects such as these from the University of Middlesex are of a very high standard. But teaching and assessing gameplay is a more difficult proposition

University of Derby



Course: BSc (Hons) Digital Media and BSc (Hons) Creative Computing

Comments: Neither course is currently running, but both should start in September 1999

Senior lecturer Dave Cook says: 'We're putting a very flexible programme in place, allowing an optional year out between the second and third years. People starting either course will take part of the programme from the other one. Creative Computing will, in the main, deal with creative applications, including a chance to use 3D Studio Max, modelling and design techniques and a CAD module. The second year will take in multimedia, a large project, animation, MIDI applications and touch on the film side. In the final year, students will develop a portfolio of work. Digital Entertainment will place more emphasis on programming. The first year will include C++ programming and a games development workshop with Net Yaroze; the second will include human-computer interaction, graphical computer animation and a further games workshop. The final year will look at developing for the internet and virtual reality applications.'


Dave Cook

Contact
Dave Cook, senior lecturer: 01332 622222



virtual environments



With Britain at the forefront of the gaming industry, students at Middlesex University (right) have every reason to choose a career designing graphics for games (above)



The Boss

Name: Dave Jones

Company; DMA Design

'I had my second game published when I was in the third year of my degree at the University of Abertay – I left to form DMA with the option to return to finish my degree if I wanted. I was advised that this was a bad move by someone who is now instrumental in the games course. It was quite funny that – I think the word he used was that I was 'mad'.

I don't think there's much difference in the graduate scene as far as games are concerned between the UK and America. Guys here tend to treat making games more as a hobby, and that's what sets the whole thing up. In America, it's hard to find someone who treats computing as a hobby. That aspect over here goes back to the old ZX Spectrum days.

We have about 15 graduates from the University of Abertay here. I think some of the other courses are a bit too specialised – I wish they'd use the word 'games' in course titles; people like to use Virtual this or 3D that. If I was on a university board, I'd appoint a Professor of Games. It's not just about 3D model design – it's about everything to do with games.'

◀ boundaries of current technology, more development teams start up. DMA's **Dave Jones**, who was instrumental in setting up the Abertay degree after dropping out of its Computer Science course to found DMA, is clear about what he wants from new staff: 'These days, I look for three things. A very good understanding of 3D – people have to have a good mathematical mindset. Second, we look for those who understand a bit about interfaces, who can produce something which is easy to use and well-structured. And the third thing we seek is feel, which is very hard to teach – you can give a small job to a number of different programmers and you'd be surprised how different each one feels.'

Although it has only just begun to focus its attention on the games world, higher education seems to be on the right track.

The acid test, is to investigate just what it aims to achieve. Abertay University's **Ian Marshall** says: 'Our students will leave as extremely employable graduates. Games tend to be in development for up to two years, with production values of a couple of hundred thousand pounds and upwards. If they don't hit buyers' PCs or consoles working on the launch day, a lot of money has been blown. The people who leave our





courses have the ability to produce reliable, robust interactive software that is intuitive to use. The industry is vibrant and buoyant – in turnover terms, it's poised to overtake the film industry. Unless the university and college sector supports it, it could run out of steam, and that would be a major loss to the UK economy.' It is beliefs such as this that are reforming the education agenda, providing young people with skills that the industry demands. ■



Middlesex University

virtual environments

Course: BSc Applied Computing

Comments: Although more of a general computing degree, this includes game-specific modules

Senior lecturer Peter Passmore says: 'We were the first university to set up a Net Yaroze lab – past students have gone on to work for Sony. Our BSc in Applied Computing has a computer graphics strand, and one of the third year modules is programming graphical interactive systems, focusing on interactive 3D – VR and games programming.'

Peter Passmore

Contact: Peter Passmore, senior lecturer: 0181 362 6428


KAC–MAN

'Playing *Microcosm* looked like TV footage of surgery in which one of those rectal probes is rammed up someone's arse. Playing it was a similar experience...'

Anonymous Psygnosis employee

digital disasters

Videogame failures are commonplace. But occasionally, a game seemingly goes out of its way to steal defeat from the jaws of victory, dragging an entire company down with it, Titanic-style. **Edge** salutes the world's most celebrated videogaming disasters...

For every *Quake, Mario 64* or *Gran Turismo*, there are countless games that woefully underperform by comparison. For this is the nature of the business, and occasionally failure is the price of the pioneer. But there are some releases that manage to turn failure into an art form. These are the blockbusters that spend years in development then fail to recoup their costs on arrival. The make-or-break games that companies need to keep themselves afloat, which become part of the deadweight that drags them down. These are the hype-fuelled, marketing-driven behemoths, that promised the earth to an expectant audience, only to deliver next to nothing.

The videogaming obituaries on the following pages contain several recurring themes – all embraced by the familiar dictum that the games industry needs to learn from its mistakes. The lure of new technology, the folly of believing one's own hype, forgetting the foundations upon which past success has been built – these are the common mistakes that crop up time and again. How many FMV-based interactive movies or licensed, side-scrolling action titles, were destined for failure right from the beginning? And do games such as *Microcosm* ultimately act as a lesson in game design? 'How not to', that is...

While gathering the eyewitness testimonies from those involved in the following games, some companies responded to **Edge**'s investigations more candidly than others. In such a clandestine and highly competitive industry, admitting failure can be a rare trait... ▶

Rise of the Robots

What was meant to happen

There are always a few select games that become focal points for the excitement surrounding new games technology. Following the introduction of CD-ROMs, the interest in rendered graphics soared following the summer of 1993, 'rendered graphics' became the industry's latest technological infatuation, all eyes turned to Mirage's *Rise of the Robots* (**Edge**, too, was seduced by the prospect of high-quality visuals and featured *Rise* on the cover of issue three).

The game was being developed by Instinct Design, Mirage's in-house development team, and early screenshots featured high-resolution, 'rendered' images of stunning-looking robots, posed in a variety of fighting stances. They looked so good that when Instinct Design bragged of eclipsing Capcom's *Street Fighter II* in terms of enemy AI and setting a new benchmark for the beat 'em up genre, people wanted to believe it. *Rise of the Robots* quickly became the most talked about title of the year, and the hype continued to fester as the game's release approached.

Format:
PC, Amiga, SNES, Mega Drive and others
Publisher:
Mirage
Developer:
In-house
Date of project start:
July 1992
Date of project completion:
December 1994
The bottom line:
With an industry clamouring for 'rendered' graphics, that's exactly what Mirage delivered – rendered graphics and not a lot else.

What actually happened

Most gamers now know not to trust pretty graphics, but this was a lesson that had to be learned the hard way. In hindsight, it's obvious that nothing could look that good (and *Rise of the Robots* certainly looked incredible) and simultaneously offer great gameplay. Logically, a computer can only process so much information, and if it spends 99 per cent of its time on the graphics, then, inevitably, the gameplay has to suffer. However, back in 1994, no-one wanted to believe that such high-resolution visuals came with such a price tag, and no-one was expecting the game to fail.

But how it failed. Instinct Design had claimed that the game would feature 100 frames of animation per robot, with a special keyframe system to ensure fluidity of movement. How this metamorphosed into the three frames of movement (robot punching/robot kicking/robot doing bugger all) featured in the final game is something of a mystery. What made the problem worse was Mirage's policy of porting the game to no less than 13 platforms (including Game Boy, Game Gear, Jaguar, and Master System), most of which were far too underpowered to show off the game's one redeeming feature – its graphics. There was even a Commodore CD32 version developed, which sold, so Mirage claims, to more than 45 per cent of the people who owned the ill-fated system – which only raises the question, 'What is 45 per cent of three?'.

'It's insulting to hear it being regarded as a *Street Fighter* clone,' stated Mirage's woefully-misinformed PR person, prior to the game's release. 'This isn't just a *Street Fighter*. It has gameplay that has never been seen before and graphics that have never been seen before – it's the next generation.' She was right in one respect. *Rise*'s gameplay had never been seen before. Or since, fortunately.

Eyewitness testimony

'We really believed that we could deliver something special. And, of course, people at Mirage promoted the game as much as they could – it was their job to try and start a fire. But towards the end, the hype really got out of hand. It meant that the game could never live up to people's expectations. And, unfortunately, too many people inside the company started to believe it. And this, I think, affected the eventual outcome.'

Anonymous source, close to the development team

'We pipped *Donkey Kong Country* to the post as the first game to feature playable rendered graphics. The press got hold of this idea and ran away with itself. The hype was amazing, and I think people expected the game to be much more than it ever could be. But I stand by it, and although the reviews for the console versions were bloody appalling, the PC reviews were very positive. And I know that the gamers liked it because we had a lot of in-box registration cards returned that said very positive things. The lesson here is that console and PC gamers are two very different people.

To criticise something is easy. To praise something is very difficult. You must look at *Rise of the Robots* in context. At the time, there wasn't a PC market, there was no CD-ROM market, it was all new. I think *Rise of the Robots* has to be seen as a product of its time.'

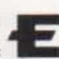
Peter Jones, managing director, Mirage

'Lies. Damn lies and statistics. This is what journalists were fed during the production of *Rise of the Robots* by codeshop Instinct Design. Whether the team believed what they were saying at the time is arguable. That they singularly failed to deliver on all counts, isn't.

It's weird that the game had an experienced lead coder and a complete novice creating the robot graphics. The 3D Studio renders, at least, did look convincing, but the 'gameplay' was a dog of Saint Bernard proportions. A colleague of mine almost completed the Amiga version simply by pushing up/right and holding down the fire button. So much for Instinct Design's promises of "robots that fight... with a very high level of AI." Let's face it, the robots were as thick as shit. Ironically, the coder responsible for overseeing the robot's moves was himself a "martial arts expert". Though if he fights like *Rise of the Robots* I could take him, easy. With one hand tied behind my back.

Also, they were always touting *Rise of the Robots* as a *Street Fighter II*-beater. How, I always pondered, would they do that using the joystick/single-fire button configuration of the PC and Amiga? The answer was, of course, that they couldn't. And they didn't do it in the sequel either, which was only slightly, marginally better. In much the same way that some bits of the Titanic are slightly, marginally less underwater than others.'

Steve Jarratt, then editor of Edge, given the world's first, exclusive, 'behind the scenes' look at *Rise of the Robots*







Rendered graphics paved the way for *Rise of the Robots*, which was originally to feature 100 frames of animation per robot. It ended up with just three moves

Pac-Man

What was meant to happen

Atari had acquired the US rights to produce a 2600 version of *Pac-Man* almost by accident. (In the late 1970s, upon returning to California from Japan with a $1 million deal to produce home versions of all of Namco's coin-op titles – quite possibly the videogame deal of the decade – Atari's licensing representative was fired for incompetence). In 1982, with '*Pac*-mania' sweeping the world, Atari was in the perfect position to cash in. It had ten million 2600 gamers hungry for new software, *Pac-Man* was the hottest coin-op since *Space Invaders*, and the game's success hinged on a novel concept, not fancy graphics, so it could easily be converted to the primitive home system. Money in the bank, then?

What actually happened

Even though more than 20 million 2600s had been sold in the States, Atari was aware that only ten million consoles were still in active use – having launched in 1976, the 2600's best years were already behind it. But this didn't stop Atari from manufacturing some 12 million *Pac-Man* cartridges. The theory was that *Pac-Man* would not only sell to each and every active 2600 user, but also prompt another two million people to go out and buy a console. Sales approaching $500 million were confidently assumed to be a 'worst case scenario.'

Apparently, the company was so busy calculating its sales figures that at no point did it pay attention to the actual business of making the game. The end result was the single worst coin-op conversion of all time and Atari once again managed to steal defeat from the jaws of victory. Despite notching up sales of seven million cartridges, gamers soon realised that 2600 *Pac-Man* was a clunker and stopped buying it.

What made the situation that much worse was that this took place back in the days when the vast majority of American videogame sales were handled by JC Penney and Sears, family-oriented chainstores with a far more shopper-friendly return policy than any of the specialist outlets of today. Despite interested parties' attempts to quantify the number, Atari never actually revealed how many of the seven million *Pac-Man* cartridges sold were returned for a full refund, but you can be sure that few gamers were backward in coming forward.

> **'I took a look at this bullshit game and told Ray [Kassar, then-president of Atari] that no-one's going to want to play it. But he didn't listen to me'**

Eyewitness testimony

'[The *Pac-Man* team] did a lousy job. The story I heard was that marketing came in and said, "We want this in six weeks!" And the programmer said, "Okay, I'll burn the midnight oil." [The end result] was terrible.'

Ed Logg, then-Atari's head game designer

'I took a look at this bullshit game and told Ray [Kassar, then-president of Atari] that no-one's going to want to play it. But he didn't listen to me.'

Frank Ballouz, then-marketing manager of Atari's coin-op division

'A while after *Pac-Man* was released, *Ms Pac-Man* was developed with an 8K ROM by a three-man team in six months. The first *Pac-Man* was developed with a 4K ROM by just one man in five months. This 4K ROM was the big problem. My version also included a two-player mode and this drastically ate into what little ROM there was. After the release of the game, Atari set a new rule that every game needed to have an 8K ROM.'

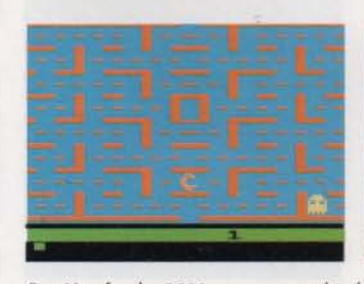
'Why wasn't the project allocated better resources? At the time the *Pac-Man* project was started, 8K ROMs weren't available yet. Also, when we started doing the port, *Pac-Man* wasn't a particularly big game. "*Pac-Man* fever" hit between the start and the finish of the project.'

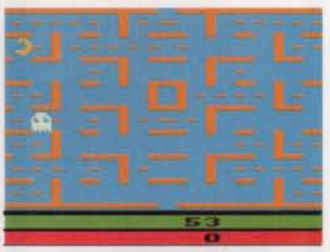
'I have no particular technical regrets when it comes to *Pac-Man*. I made the best decisions I could based on the technology available to me at the time. But six months later, if you asked me whether I would have done it differently? I'd say, sure.'

Todd Frye, programmer of Atari 2600 *Pac-Man*

'I remember handing over hard-saved birthday money for this one as a kid. And yes, the quality of the game I received and later, the lack of faith 'Next Generation' had in Atari while I was editor-in-chief, are undoubtedly connected.'

Neil West, then-editor, Edge's US sister publication, Next Generation





Pac-Man for the 2600 was supposed to be a sure success, despite the fact that the technology was already out of date. Sales of at least $500 million were expected. Instead, stores ended up refunding lots of money to unhappy gamers



Format:
Atari 2600 VCS

Publisher:
Atari

Developer:
In-house

Date of project start:
Late 1981

Date of project completion:
April 1982

The bottom line:
Didn't lose Atari money in the end but did shatter the faith that VCS gamers had in the company.

ET



Format:
Atari 2600 VCS
Publisher:
Atari
Developer:
In-house
Date of project start:
July 23, 1982
Date of project completion:
September 1, 1982
The bottom line:
With total costs estimated at more than $125 million and total revenues at less than $25 million, the great videogame crash of the early 1980s began here...

What was meant to happen

In late 1982, Atari needed help. Although more than 20 million Atari 2600 consoles had been sold in North America, less than half were still in active use, and the technology was ageing fast. The Vectrex and the Colecovision were the cool new machines on the block and both offered more than the primitive 2600. However, Atari had deeper pockets than its competitors and could afford to launch a bold defence of its market. Steven Spielberg's 'ET: The Extra Terrestrial' was the biggest phenomenon to hit the US in years, and for $25 million, Atari secured the rights to produce the game of the movie. On October 25, 1982, 'Newsweek' heralded the imminent release of *ET* as Atari's 'biggest coup,' and the stage was set for the cartridge that would cement Atari's dominance of the videogame industry and rocket the 2600's appeal beyond that of its competitors.

What actually happened

The game stank. Anyone who played it would probably say it's one of the worst games ever created. And it died.

Following the substandard conversion of *Pac-Man* earlier in 1982, many 2600 gamers had lost faith in Atari and refused to buy any more software. Those gamers who remained loyal exercised extreme caution before parting with their cash and word soon spread that *ET* was even worse than *Pac-Man*. It soon became obvious to everyone that Atari would never sell the six million cartridges it had manufactured, and prices began to plummet. On December 7, Atari executives announced that they were cutting their 1982 revenue forecasts from a whopping 50 per cent increase over 1981 levels to a meagre 15 per cent. The business world panicked and, by the end of the day, the price of Warner (the owners of Atari) stock dropped almost a third from 52¢ to 35¢. Even Atari President Ray Kassar hurriedly unloaded 5,000 of his shares (half an hour before announcing the revenue forecast cuts to the public).

Copies of *ET* ended up gathering dust in 'less than a dollar' bins across the US, gamers abandoned the 2600 en masse, and so the legend goes, approximately five million unsold cartridges were buried in the New Mexico desert and . The great videogame crash of the early 1980s had begun. And if the game that prompted such disaster looked as if it was cobbled together by one person in just six weeks, that's because it was.

> **'I remember... turning it on. I fell into a hole and couldn't get out. I tried again. The same thing happened. I went back to the store and demanded my money back'**

Eyewitness testimony

'I asked Steve [Ross, then-president of Warner Communications], "When do we have to produce this *ET* game?", and he said for Christmas of 1982. This was the end of July when he called me. I said, "Steve, the time it takes to produce a game is at least six months – this is impossible" He said, "Well, you have to do it because I promised Spielberg we'd have it on retail shelves for Christmas." So we had literally six weeks to produce a brand new game, manufacture it, package it, and market it. It was a disaster.'

Ray Kassar, then-president of Atari

'Ray called me up personally. He said, "Howard, we need *ET*" This was July 23. He said, "We need it by September 1st. Can you do it?" and I said, "Yeah."'

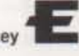
Howard Scott Warshaw, programmer of ET

'I remember buying *ET*, taking it home, and turning it on. I fell into a hole and couldn't get out. I tried again. The same thing happened. I went all the way back to the store and demanded my money back. I think I bought some comics instead.'

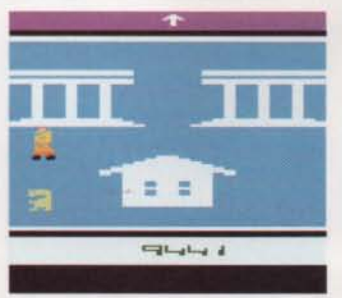
Trent Ward, ex-reviews editor, Next Generation

'I have an *ET* cartridge sitting in my office. It has five price stickers on it. The first one is $49.95, the last one is 99¢. I paid 75¢ for it at retail.'

Al Nielsen, ex-buyer for US chain, JC Penney









The amount of time devoted to developing *ET* (40 days to be exact) showed in every single aspect of the game. Spielberg made millions, Atari buried more

World Cup Carnival

What was meant to happen

The first officially-licensed World Cup game would obviously be a premium title, a cut above the pursuing pack of the lesser football games. Come June 1986, things were going according to plan. World Cup fever gripped the nation as England eased past Poland 3-0 thanks to a Gary Lineker hattrick, and faced Argentina in the quarter finals. For US Gold, the game must have seemed like a license to print money, destined to go straight to number one across all formats. What could go wrong?

What actually happened

Nothing did go wrong. For US Gold, at least. The game duly hit number one and was a huge commercial success. Creatively and critically, however, it was an unmitigated disaster.

The expensive packaging – glossy video case, bundled wallchart and other dubious morsels – could not disguise the fact that *World Cup Carnival* was nothing more than a slightly re-jigged version of a none-too-special two-year-old game, *Artic World Cup*.

However, thanks to their Lineker-fuelled football frenzy, the public blindly snapped it up only to repent at their leisure. Just as Diego Maradona's 'hand of God' destroyed the English's faith in fair play and honesty, so US Gold did the same to a generation of gamers.

Eyewitness testimony

'We commissioned a very expensive cover from a biggish name in comic book artwork – "something World Cup-ish", we said, "and global" – and left tons of space in the last section of the magazine for our grand review and… nothing. US Gold went strangely quiet. No game, people were hard to get on the phone… it was worrying.

Finally, on the very last day we could write anything and get it in the magazine, it arrived. We loaded it. It was utterly dire. Not dire in the 'buggy, not ironed out' sense, nor dire in the 'tedious, uninvolving, no fun to play' sense. It was dire in the 'little men running about like ants with no sense of purpose, impossible to play because the ball kept being lost against the background' sense. And dire in the 'how will we ever be able to explain to our readers why we put this on the cover, they'll never trust us again' sense.

Everyone at US Gold seemed to have disappeared. So, we did what all magazines do in this situation – or used to, anyway – we pretended the globe on the cover represented 'the world of computer football games and did a round-up of every available football title.'

Graham Taylor, then-editor of 'Sinclair User'

'First, I must point out that I am not proud of my contribution to *World Cup Carnival*. For something that happened over a decade ago, it is one particular skeleton which keeps being taken out of the proverbial closet. But since it has been exposed once again, I will give you the facts as they really happened.

Throughout the early '80s Artic had been a very successful publisher. My major contribution to the company was writing text adventures. But by the middle of the decade the company's fortunes had turned and money was becoming short. It was the summer of '86 and World Cup fever was beginning to mount. Out of the blue, we received a telephone call from Tim Chaney, then general manager at US Gold. He told us about US Gold's Mexico '86 World Cup license. The license was excellent, the packaging was even better. Unfortunately, it was only six weeks off and they had been badly let down by another developer – there was no code.

He asked if we could adapt our 1984 football game, *Artic World Cup*, to fit the license. We took the job and Geoff Brown (then head of US Gold) drove to Hull in his Testarossa to visit us. He explained that since *Artic World Cup* was well known and had sold very well, it would be inconceivable to simply produce the same game with superficial changes. We were to add a section that allowed the player to practice penalties and ball skills.

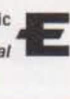
We managed to finish it all off in the six weeks and were rather proud of ourselves. The whole project had been shrouded in secrecy and US Gold had not sent out any review copies. For days before launch, US Gold staff simply didn't answer the phone. So, the first time the magazines got to see the game was once it hit the shelves. There was a furore. And by the time the reviews hit, the World Cup was over and the game had achieved huge sales.'

Revolution's Charles Cecil, then of Artic Computing

'US Gold was effectively selling a ropey, two-year-old budget game for £10, with a cloth badge and some stickers. It got crucified in the press. 'Amstrad Action' gave it zero per cent.

As a footnote, Artic sold the rights for the original game to a budget distributor called Geoff's Records who were effectively selling the same game for 99p and they sued US Gold/Artic. In the end, Artic lost pretty much everything they had made from the deal. They, in turn took it out on the programmers and we were only paid half of what we were originally promised.'

'PC Format' magazine's Adam Waring, then in-house programmer at Artic and responsible for the 'enhancements' added to *World Cup Carnival*







Only the adverts on the billboards around the ground changed in the game proper in the transition from *Artic World Cup* to *World Cup Carnival*

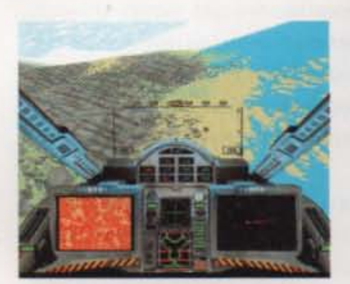
Format:
Spectrum, Amstrad CPC, Commodore 64
Publisher:
US Gold
Developer:
Artic
Date of project start:
April 1986
Date of project completion:
June 1986
The bottom line:
We wuz robbed.

Battle Cruiser 3000AD

Format:
PC
Publisher:
Take 2
Developer:
Derek Smart/3000AD
Date of project start:
1989
Date of project completion:
Out now
The bottom line:
The single most delayed and troubled game of all time. Even though it's been released, it's still questionable as to whether it's really complete...

What was meant to happen

'I am the greatest programmer in the world,' Derek Smart allegedly once bragged to a fellow programmer. Smart's aim was to produce the 'ultimate computer game,' an entire artificial universe populated by computer-generated life-forms based on neural network technology. The game would think and learn for itself, respond to the player's actions, and offer the most realistic gaming experience ever devised. Despite the project's extreme level of ambition, he, at least, always seemed confident that he could pull it off. *Battle Cruiser 3000AD* was conceived in 1989, early demonstrations were shown at trade shows in 1992, and a release date of April 1993 was announced to the press. But development quickly got bogged down, and the game passed by several publishers before reaching stores, courtesy of Take 2, in October 1996.



On sale before completion, players couldn't get past the second mission – even with patches

What actually happened

What is certain is that the game crashed constantly, wouldn't play past the second mission, and had both gamers and reviewers scratching their heads in confusion. Patches were quickly issued to rectify the problems, but most simply caused further glitches. 'This is the first time I ever had to wait for a game's third patch before I could play it long enough to decide what was going on,' one reviewer lamented. 'This is also the first time I've had to wonder if one of my reviews will garner me a lawsuit, as threats seem to fall like rain around anybody who says anything untoward about this product in print'.

Subsequent re-releases and patches have made the game playable, and *Battle Cruiser 3000* continues to impress/baffle/anger gamers almost 18 months after its initial launch. Some die-hard fans can't get enough of it, but the majority of gamers now simply wonder what all the fuss was about.

Eyewitness testimony

'To some, Smart was a perfectionist, working hard to code a groundbreaking piece of software, and he would get it right at all costs, no matter what the delays – a noble figure fighting the corporate money men. Or maybe he was a snake oil salesman, promising castles built on the clouds to increase his own fame and to milk money from publishers. Or maybe he was just an average guy with a good idea, who wanted to do it right but made promises he couldn't keep. His volatile and quirky personality makes it hard to determine the truth.'

T Liam McDonald, columnist for 'Boot' magazine and observer of the BC3K project

'Was I insane when I started this? Hell yeah! Because I had to be stark raving nuts to think that I could pull this off in 1989 and stick with it for eight years. People call me crazy and say I need therapy, [but] I love being insane because it puts me in a state of mind that allows me to not only tap into my own intuition and do what the hell I want, but also to put up with all this bullshit that's going on in this industry. It puts me beyond caring what the next person thinks. No sane person could have done this. Any sane person would have bailed.'

Dr Derek Smart, creator of *Battle Cruiser 3000AD*

Epic

Format:
Commodore Amiga
Publisher:
Ocean
Developer:
Digital Image Design
Date of project start:
1988
Date of project completion:
1992
The bottom line:
The only 'epic' thing about it was how long everyone waited.

What was meant to happen

As the eighties gave way to the nineties, the Amiga ruled the roost on the UK software scene. Mancunian veterans Ocean – then better known for its innumerable movie licenses than for anything else – was set to redefine what was possible on the Amiga with the awe-inspiring graphical finesse of its space opera, *Epic*. Debutante DID was behind the design of the game that would outdo the upstart PC and its then-revolutionary *Wing Commander* title.

What actually happened

Epic was an intro in search of a game. Its impressive graphics were not in doubt. The big questions were over the gameplay, with the chief one being where the hell was it?



The space shoot 'em up was a financial success but its gameplay was fatally flawed

The basic space shoot 'em up gameplay was none too challenging, making the game spectacularly easy to finish. The difficulty level wasn't helped by the fact that a cheat to refill all fuel and reload all weapons was clearly identified in the manual and even printed on the pilot controls reference card supplied with the game. On the subject of the manual, it was such a shoddy affair that many sections were incomplete – for 'Ion', the glossary read, 'a particle of fill in later'. (Apparently, the German entry read, 'ein particle von fill in later').

Eyewitness testimony

'*Epic* was by no means a flop for DID and Ocean. The game did suffer from being delivered late and probably didn't live up to the enormous hype it was given. Graphically I suppose you could say that the in-game action was overshadowed by the glorious cut-scenes and the gameplay could be termed as limited. *Epic* was, however, a financial success. The same can't be said of its follow-up, *Inferno*. The PC-based space extravaganza suffered from awesome slippage due, in the main part, to the game being designed as a disk-based game and later being moved onto CD. There seemed to be a delay of almost a year while voice-overs were added. A year in which the backlash of the hype hit the game head-on. The combination of delays and flawed gameplay led to DID's biggest failure. Of course, it didn't get them down. Winning 'Game of the Year '97' at Milia just shows how they went from strength to strength.'

Anonymous former DID employee

'The reviewing community had been suspicious for some time about the lack of playable preview material on *Epic*, so no-one was all that surprised when it turned out to be so awful. The readers, though, being less cynical, were shocked and dismayed at the game's dismal quality and besieged AP with unhappy mail about the game, which we published after giving Ocean a right to reply, which it at first accepted but then declined after having seen the letters.

Instead, it let us print the letters unchallenged, then sued us for Libel for printing quotes from them in which readers offered the opinion that Ocean was a crap company. The wags.'

Stuart Campbell, then of 'Amiga Power' magazine 

Microcosm

What was meant to happen

Before enjoying success on PlayStation, Psygnosis ushered in the CD-ROM gaming era with the *Fantastic Voyage*-cum-*After Burner* game *Microcosm*. In retrospect, it's easy to see what it was trying to do. Prior to this, the one thing gamers never had was video footage. CD-ROM offered this option, so Psygnosis set about delivering it. The big problem was in trying to make the video interactive. Which, in this case, it wasn't.

What actually happened

After a stunning opening sequence, *Microcosm*'s gameplay proved to be merely a lacklustre shoot 'em up. In a tube. With little or no attention paid to gameplay.



***Microcosm* was destined to be a showcase for CD-ROM technology. It offered little else**

One of the project's artists summed it all up when he said, 'The idea was to get a visual feast and tie a game in there somewhere as well.' But with the gameplay taking a backseat from the off, *Microcosm* never really was a game at all. The paltry 400K of game code used up a whopping 0.1 per cent of the disc space and consisted of the movie player and a bit of collision detection. Rocket science, it wasn't.

It's easy to see that the *Microcosm* project was a neat way for Psygnosis to test a new format. By putting these experiments in a box and selling it as a game it could generate some revenue to help offset the cost of this research. But, of course, someone's always got to pay the bill, eventually. And with *Microcosm*, this unfortunate someone was the gamer.

Eyewitness testimony

'When Psygnosis first had the product, it ushered a bunch of journalists into a little room for a screening. Dutifully we all sat through the seven-minute intro and were kind of impressed in a 'well, you've ripped off 'Blade Runner' and 'Aliens' really badly but managed to squeeze it on to a CD-ROM' way. As soon as the in-game stuff started, everyone wandered off.

When, during *Microcosm*'s development, the lead programmer is quoted as saying: "The one thing we've got to be careful of is that we don't just take 600Mb of storage space, bung anything on there, and say $#%@ the game," you've got to raise a wry smile, haven't you?'

Steve Jarratt, then-editor, Edge magazine

'Despite its obvious gameplay faults and flaws, you have to remember that while developing *Microcosm*, one of the world's first CD-ROM games, we had no-one else's mistakes to learn from. Also the hardware platforms we were dealing with – Commodore's ill-fated CDTV and CD32 machines, and Sega CD – obviously hampered its potential. There was also a barrage of hype surrounding CD as a format at this time, and people got a little too carried away with what they believed the CD-ROM format could deliver.

'All that said, we don't think *Microcosm* was the flop it is often perceived to be. It was a commercial success for Psygnosis and did, at least, show people that the CD-ROM format, while nowhere near perfect yet, could deliver incredible audio/visual advances.

Glen O'Connell, Psygnosis

'Okay, we admit it. Playing *Microcosm* looked like TV footage of surgery in which one of those rectal probes is rammed up someone's arse. Playing it was a similar experience.'

Anonymous Psygnosis employee

Format:
PC, Sega CD, FM Towns
Publisher:
Psygnosis
Developer:
In-house
Date of project start:
Early 1993
Date of project completion:
1994
The bottom line:
The excitement and hope surrounding the introduction of CD-ROMs, rests on one game – with disastrous results.

Fight for life

What was meant to happen

Late in 1994, with PlayStation and Saturn looming, Atari's Jaguar needed to consolidate its head start and grab itself a chunk of the next generation console marketplace while it could still claim to be the most powerful videogame hardware available. With *Virtua Fighter* a certainty for Saturn, and emerging screenshots of mysterious PlayStation projects *Tekken* and *Toshinden*, Atari wanted a polygonal fighting game, too. *Fight for Life* was Jaguar's flagship project. François Yves-Bertrand, fresh from Sega AM2's *Virtua Fighter* team, was hired as lead programmer. Excited Jaguar gamers eagerly awaited its December 1995 release.



Fight for Life* had its butt deservedly kicked by the vastly superior *Tekken* and *Toshinden

What actually happened

After suffering many delays, *Fight for Life* eventually shipped in April of 1996. But by this time, PlayStation and Saturn were rapidly eroding Jaguar's tender foothold in the market, and it was becoming increasingly obvious that Atari was quite dead.

And as for the game itself, well, the Atari faithful lauded it as the finest fighting game of the decade. But then these were the same people who could look you in the eye and tell you that clearly, *Club Drive* is a superior driving simulator to *Daytona USA*. In reality, *Fight for Life* struggled in every area of its execution. And with the team's dismal failure to squeeze anything like PlayStation-, or Saturn-quality visuals from Atari's 'technically superior' Jaguar, time was up for the hardware.

Eyewitness testimony

'I inherited the project after the first producer left the company. I'm just trying to forget the whole nightmare – that's why I asked for my name to be removed from the credits.'

Anonymous, *Fight for Life* producer

'Despite all the delays, production disasters, and the game's limitations, *Fight for Life*'s original producer was able to constantly bullshit upper management into believing that the game really would redefine the 3D fighting genre. I was once at a meeting in which – on a wide-screen TV – it was compared head-to-head with *Tekken*. In a classic case of management "hear no evil, see no evil, speak no evil," Atari executives nodded, smiled, and agreed that *Fight for Life* was a legitimate competitor to *Tekken* and *Toshinden*. It was unbelievable.'

Anonymous, then-Atari employee

'At the time, Atari was not in good shape. From a financial point of view, the company was struggling. From a technical point of view, the Jaguar was outdated before developers could really get the hang of it. From the press' point of view, well, Atari wasn't really the cat the press was betting on. From a distribution point of view, the Jaguar never really made it. So, Atari wasn't really the best place to be. And sure, *Fight for Life* wasn't a *Virtua Fighter* or a *Tekken*, but then the Jaguar wasn't a PlayStation either. And I know most gamers were happy that some developers were spending time trying to do what they could.'

François Yves-Bertrand, lead programmer of *Fight for Life*

Format:
Jaguar
Publisher:
Atari
Developer:
In-house
Date of project start:
May 1994
Date of project completion:
April 1996
The bottom line:
At worst, *Fight For Life* was the final nail in the Jaguar and Atari's coffin – at best, it was the wreath.

Testscreen

The definitive monthly assessment of the world's latest videogames

Gameview

Corrosive Software's **Mark Neesam** casts a critical eye over *FFVII*, and finds it lacking very little...



Mark Neesam is an artist with game startup Corrosive Software. The company's first project is *Assault Korps*, an isometric strategy game, and can be seen on p58.

Members of the development community are invited to email Gameview submissions to **edge@futurenet.co.uk**

Final Fantasy VII

To create *Final Fantasy VII*, it seems to me, Square took a manga-style fantasy plot, bolted a fairly simple role-playing game engine to it, and then spent two years throwing the kitchen sink at it. It is an amalgamation of so many disparate ideas, game types and graphical and musical styles that it probably shouldn't hang together as a single entity, but does so, and manages to be a truly superb game into the bargain.

The plot is a real belter (albeit completely bonkers in that special way that the Japanese are so good at). The game itself is completely linear, though, giving the player no opportunities to deviate from the main story at all. Although this is restrictive, *Final Fantasy* gets away with it admirably most of the time, providing a whole host of distractions and sub-quests to amuse and entertain. However, my characters decided to do things that I didn't want them to, thus shattering the illusion that I was in control of their destiny.

The core RPG is hugely varied and contains many puzzles – cleverly, the easier ones are essential to further the plot, while the trickier ones yield the groovy bonus items. The excellent combat system really makes this game stand out, especially the inspired implementation of magic that allows an unrivalled degree of experimentation. The fighting can become a tad tedious, but the game copes very well, providing magic to ward off creatures, and items that let you duck out of unwanted fights. Interspersed with this typical RPG fare are a multitude of sub-games, ranging from strategy games to snowboarding and submarine hunts, to giant chocobo racing. These are generally excellent, and in a stroke of genius, the best of these feature as arcade machines in the casino location, so they can be played as often as you want to.

The graphics vary in quality, from awesome to merely excellent. Admittedly, there are ropey bits, but that's understandable in a game of this scope. The magical effects used in the fight sequences are simply breathtaking, however, though this does sometimes make them too long to sit through repeatedly. The FMV sequences deserve a mention too. I'm not a fan of FMV usually, but Square has seamlessly integrated a multitude of gorgeous sequences into its game, using them to further the plot.

FFVII is absolutely superb – an epic, a classic and a milestone game all in one. I love it.







Mark Neesam enjoys FFVII's interactive, RPG-styled gameplay (left and middle), and the varied sub-plots on offer include strategy games, submarine hunts and even chocobo racing (right)

Videogames on the Edge

The games – old, new, whatever – that have grabbed **Edge**'s attention this month



Colin McRae Rally (Codemasters)
A new version of the *TOCA* creator's off-road racer has arrived, to the sound of **Edge**'s work screeching to a halt. As they say, first impressions last...



1080° Snowboarding (Nintendo)
The AI may leave a little to be desired, but nothing comes close to skimming down *1080°*'s time trial courses. Snowboarders need never get cold again.



Bubble Bubble (Acclaim)
Two-player gaming at its hectic best. PlayStation owners in need of light relief (and an education in 2D gaming) need look no further. Cute and classic.



Xi (SCEI)
Another potential member for SCEI's ever-increasing collection of highly original titles. **Edge** hasn't stopped playing the Tokyo Game Show demo version yet.

Index

Tekken 3



Law demonstrates to Panda why he remains one of the most popular fighters in the game. Facial and clothing detail is several rungs above that in *Tekken 2*, while Namco has made significant advances in its motion capture

At the dawn of the 32bit console age there were few reasons more compelling to buy a new machine than Sega's *Virtua Fighter* and Namco's riposte – *Tekken*. After the long dominance of Capcom's Street Fighter series on the Mega Drive and SNES, fighting game fans had the luxury of picking between two titles that not only utilised 3D technology, but were also of outstanding quality. Three years later the Saturn is all but deceased, and *Virtua Fighter 3* may never see a home format release. Meanwhile, Namco's beat 'em up has now reached its third PlayStation incarnation, packed with additional gameplay features designed to augment the already unbeatable play experience.

By setting this new installment two decades after *Tekken 2*, Namco has given its designers the chance to start over with the characters, although some past favourites (or their similarly skilled children) have made an appearance. Thankfully, it elected not to tamper with the easily understood 'one button, one limb' control system.

While it was expected that *Tekken 3* would be a significant step-on from the previous game in the series, quite how much the development team has achieved doesn't become apparent until play commences. Though the game has been available as a coin-op title for some







The first half of the standard *Tekken 3* line-up includes (left to right); Jin, Law, Lei, Hwoarang and Paul. While some are carried over from earlier versions of the game, all of their move lists have been revised and refined

Format: **PlayStation** Publisher: **Namco** Developer: **In-house** Price: **¥5,800 (£30)** Release: **Out now (Japan)**







New character Mokujin (top) is a wooden training dummy who varies his fighting style every game



Powerful, solid-feeling characters and reassuringly accurate collision detection ensure that *Tekken 3*'s extended acrobatic sequences are often spectacular and always damaging to one or both players

time, in that form only the wealthiest players will have discovered all of *Tekken 3*'s secrets. The videogames industry has misappropriated the term 'arcade perfect' too many times for it to have any real meaning, but Namco's game comes very close to deserving that tag. Animation is not simply smooth but incredibly detailed, with motion capture used extensively to bring the fighters to life. Watching the Bruce Lee-replicant, Law bounce tensely around the arena, shifting his weight from foot to foot is a sight and joy to behold in itself. Other protagonists, including newcomers such as the breakdancing Eddy, have received an equal amount of attention to their movements.

The motion capture is aided and abetted by an increase in the number of polygons used to mould each fighter. Playing *Tekken 2* back-to-back with *3* provides ample evidence of the advances made in the game's graphics – without the assistance of a hardware add-on that had been mooted during the game's gestation. Characters as depicted in the second iteration – ones that seemed, at the time, to represent the peak of the PlayStation's abilities – seem blocky and lifeless in comparison to those in the third. Additional lighting effects are also employed throughout to spice up the action, although the chief beneficiary of these is Yoshimitsu, now equipped with a glowing sword.

Namco's musicians have also been given ample opportunity to demonstrate their talents. Few titles stream such suitable tunes so seamlessly into the action, and even fewer can claim their music as bespoke. ▶



Namco has thankfully retained its onscreen lists of attack moves







(Left to right) King, Yoshimitsu, Nina, Eddy and Xiaoyu make up the last five of the initial characters. Of these, Eddy is the simplest for newcomers to learn, as hammering away on the kick buttons should ensure success



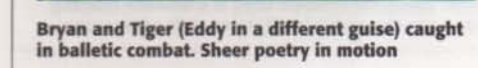




'Tekken Ball' is karate crossed with volleyball (top), while the 'Tekken Force' sub-game (middle, bottom) is similar to Capcom's *Final Fight*, scrolling from left to right as the player struggles against hordes of opponents. After completing it four times, a secret character (from the medical profession) is revealed...



Sadly, screenshots can't convey *Tekken 3*'s fantastic background music – or its crunching sound effects



Bryan and Tiger (Eddy in a different guise) caught in balletic combat. Sheer poetry in motion

A comparison of the two titles also reveals the progress made with *Tekken*'s AI routines. On harder difficulty settings in one-player mode, opponents will adapt to, predict and shrug off repeated use of a single move with alarming ease. Increasingly unpredictable opponents are clearly the way forward for fighting games, within reasonable limits: a real fighter would be unbeatable if he could predict his opponent's next move.

The differences between the 22 characters that **Edge** has discovered are far more marked than in *Tekken 2*. Although many of the 'new' additions are simply developments of past favourites, a great deal of effort has clearly been expended by the developers to ensure that the balance between fighters' skills is even. Each of the combatants is now a strong character is its own right, with only the aforementioned Eddy favouring a 'press-all-the-buttons-and-see' approach.

Those familiar with the *Tekken*'s patterns and moves will probably find this third interpretation less of a challenge than a player fresh to the fray. In order to offer its die-hard followers a fresh element, Namco has given both the initial selection of characters, and those that appear as 'prizes', a major overhaul. While familiar basic attacks maintain the same key combinations, others – most notably throws – have been made less accessible. As a result, even the most experienced fans will need to







As in previous *Tekken* games, defeating the final boss reveals some hidden characters. Many of these are now strong fighters in their own right. Heihachi, Bryan, Anna, Gun Jack and Ogre (left to right) are the first five...







By tapping the D-pad up or down, the characters can be moved in or out of the screen. It's a welcome addition, and one that experienced *Tekken* players will find freshens up the gameplay

re-learn some of the movements, which is no bad thing. The simple hits that could be performed after opponents had been knocked down have also been purged; there are assaults that can be employed against prone foes, but these are now harder to access. A greater emphasis on juggles (where repeated strikes can keep adversaries airborne and defenceless) is also noticeable throughout the game, with new attacks included to assist their use.

Away from technical gameplay aspects, newcomers to the *Tekken* cult will find a game that remains one of the most accessible beat 'em ups ever devised. Its extensive practice modes enable players to rehearse more complicated moves at their leisure, with the majority of each character's attacks listed in an easily unfurled sub-menu. Additionally, Namco's developers have included an all-encompassing selection of play modes, covering everything from standard 'Arcade', 'Time Attack', 'Survival' and 'Versus' settings to the more oblique 'Team Battle' and 'Tekken Force'. This last option is a sub-game that requires the player to battle along a sideways scrolling play area, defeating hordes of shadowy foes, much like the seminal *Double Dragon*. As a bonus, completing a certain amount of the Arcade mode reveals an additional 'Tekken Ball' game, which is essentially volleyball crossed with karate – and very enjoyable.

With *Metal Gear Solid* on its way, *Gran Turismo* imminent in Europe, and now *Tekken 3*, 1998 looks set to be a golden year for the PlayStation. With *Tekken 3*, Namco has left its competitors an imposing target to beat; the new play modes, advances in AI and character design made in development are far more significant than those in the second iteration of the series. **Edge**'s only – slight – reservation is that those who have played *Tekken 2* to the point of exhausting all enthusiasm for the game may not find this new version initially appealing. Those prodigal sons should persevere, as even a short sequence of bouts will bring the reward of instant addiction. Make no mistake, the master has returned.

Edge rating:

Nine out of ten





The polygon backdrops of arcade *Tekken 3* have not survived the translation to PlayStation. In their place, large bitmaps are scaled and skewed as the camera pans about, similar in effect to QuickTimeVR. It's a worthy substitution, however





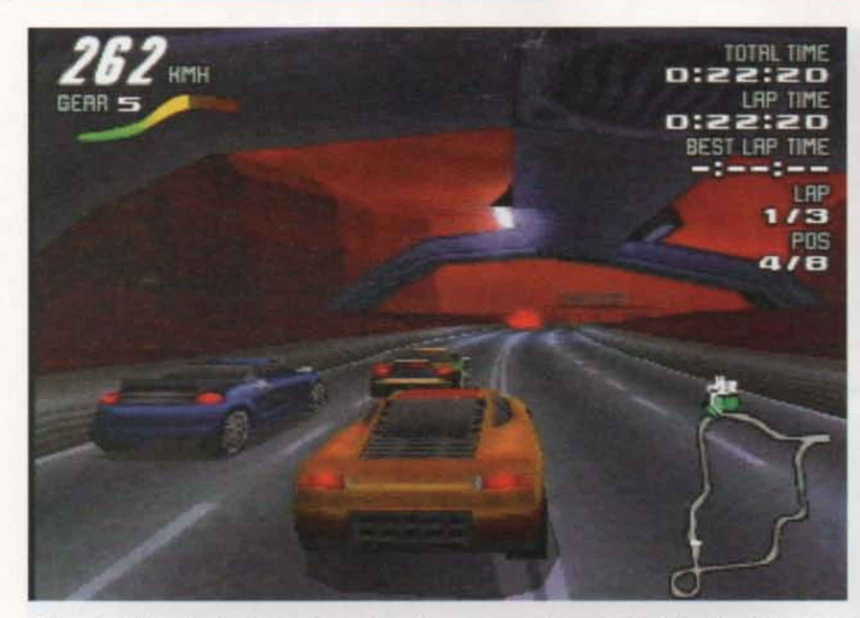






...while Panda, the diminutive Gon, Tiger, Mokujin and Julia 'almost' complete the collection. Most of the protagonists have duplicate outfits, selected by pressing alternative buttons on the selection screen

Motorhead









Although at times the backgrounds can be rather sparse, and tend to block in rather late, *Motorhead* creates a suitably futuristic atmosphere with a chemical-red skyline and smog-green lighting. However, some circuits, like Olympos (bottom, far right), buck the trend with glorious sunshine





The splitscreen option (top) compares well with the one-player game in both visuals and speed

Recently, there has been a shift amongst driving game designers, away from arcade racers and toward accurate sims like *TOCA* and *Gran Turismo*. *Motorhead* on the other hand, has taken a swaggering step in the opposite direction.

The first hint is the setting. *Motorhead* takes place in a hazy near future where drivers compete in the Transatlantic Speed League – a fictitious organisation arranging meets everywhere from industrial docklands to Greek villages and city streets. Indeed, one of the game's finest features is this sheer variety and imaginative detail. Ruhrstadt, for example, has drivers racing through an empty underground car park, Olympos goes for a Mediterranean plaza and Neocity features a huge San Francisco-style drop through the steep urban streets.

On top of this, each of the circuits is riddled with chicanes and roadblocks to keep players in constant, frantic concentration. Hit a concrete traffic island, or a row of bollards, and by the time you get back into the race you'll be in last place for certain. This is the first of the game's controversial eccentricities; players who want to be challenged more by the tracks than by other cars will find *Motorhead* a breath of fresh carbon monoxide. Sim fans, however, are likely to be enraged by obstacles littering the courses.

Those coming to this game after *Gran Turismo* may also be disappointed by the limited range of the single-player game. Here, entrants start at the bottom of league division three with three cars to chose from and two courses – the aim is to progress through to division one, thereby opening all eight circuits and ten cars. Although these tracks are well-designed, it's a far cry from *Gran Turismo*'s 21 offerings.

But not everyone wants the intricate depth and long learning curve of SCE's masterpiece. Some want to just blast through a few stimulating tracks – an experience *Motorhead* provides. The handling is skittish and exciting, especially with cars that substitute grip for acceleration and speed (each vehicle offers a different combination of all three attributes). There is also an incredible 50fps option, which halves the amount of competitors rather than comprising on visual detail.

Motorhead, then, is something of an enigma, existing somewhere between *Wipeout* and *Ridge Racer*. At times it's infuriatingly difficult, with opponents constantly zooming off into the distance, despite claimed realistic AI. It can also prove more effective to accelerate and slam round corners than try and take them with skilful driving. However, the game is addictive – and opponents do make mistakes from time to time. Digital Illusions has made many compromises in the name of instant playability – some have failed, many have worked brilliantly. E

Edge rating:

Seven out of ten



The car models are a touch lacklustre, borrowing heavily from the Lamborghini school of design

Format: **PlayStation** Publisher: **Gremlin** Developer: **Digital Illusions** Price: **TBA** Release: **April**

Dead or Alive



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Having declined the opportunity to sign Dead or Alive at the end of 1997, the current occupants of 266-270 Gunnersbury Avenue have yet another reason to kick themselves. Takara's PlayStation conversion of this moderately successful Model 2-powered fighter is not only better that its Saturn equivalent, it's also a confirmed fixture on Sony Europe's 1998 release schedule.

Dead or Alive is moderately unique as a PlayStation beat 'em up in that it utilises a control method not dissimilar to the Virtua Fighter games. While other 'me too' brawls on Sony's machine plagiarise Namco's Tekken, DOA uses Sega's standard of solitary kick and punch buttons, but with a novel addition - a 'counter-attack' command. This allows players to halt opponent's moves in mid-flow with a solitary tap of a joypad, before launching their own immediate ripostes.

With certain blows capable of draining a third of a competitor's energy bar, the counter attack is no mere gimmick. As Dead or Alive's pace is, without exception, frenetic, players who favour a more defensive style of play will soon fall foul of over-reliance on basic blocking. Street Fighter and Tekken adepts in particular will find DOA's attack-oriented gameplay difficult to get to grips with.

As if its well-measured gameplay were not enough to intrigue PlayStation owners, Dead or Alive can also claim to be the fastest fighting game on any current format. Running in high-res at 60fps, DOA makes its 32bit contemporaries - including its Saturn equivalent - appear ponderous and laboured by comparison. But this pace is maintained through the sad but perhaps necessary compromise of simplified backdrops and precious little in the way of arena furniture.

Sadly, Takara cheapen Dead or Alive's PlayStation debut by recreating the decidedly dubious 'breast animation' of the arcade and Saturn versions. The slightest movement by a female character causes her bosom to move in an exaggerated, gravity-defying manner. It's this feature that many will come to regard, mistakenly, as DOA's key selling point. Edge is far from prude, but finds this feature decidedly out of context - the beat 'em up genre seems hardly the place for Russ Meyer-style mammary fixations.

Although its remarkable speed and relentless action may not appeal to all, Dead or Alive could conceivably enjoy a reasonable amount of success where others will fail in coming months. Tekken 3 is, quite understandably, the title all gamers want to play, but Takara's offering should prove sufficiently different and accomplished to entice buyers.



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Edge rating:

Eight out of ten

Format: **Saturn** Publisher: **Sega** Developer: **AM2** Price: **¥5,800 (£30)** Release: **Out now (USA)**

Bushido Blade 2



***Bushido Blade 2*'s first person mode is interesting, but is ultimately little more than a novel diversion in gameplay terms. But, as the above picture attests, it lends itself to spectacular views**





Much posturing and posing accompanies *Blade 2*'s story (top)

The original *Bushido Blade* was, though flawed, one of the most conceptually exciting beat 'em up releases since the debut of *Virtua Fighter*. A game that eschewed the standard of energy bars and introduced the idea of honour and ethics into its genre, *Blade*'s weapon-based combat was a far cry from the *Tekken*-inspired bladework of *Soul Edge*. But while inspirational in terms of design, SquareSoft's visionary work was marred by poor execution and stilted, almost turn-based gameplay.

Bushido Blade 2, by contrast, is a flowing, assured combat game. At a glance, it appears a minor update of the first game, with arbitrary aesthetic and casting alterations making it a title for the beat 'em up completist, and little more. The truth, however, is rather more satisfying: *Bushido Blade 2* is the title its predecessor should have been.

Blade's storyline – developed in its Decisive Battle Room – focuses on the conflict between two warring families. The battle between the Sue and Kagami dynasties begins with each side boasting three characters. The manner in which other fighters can be acquired, however, is somewhat unique.

In the Decisive Battle mode, players encounter not only opposition warriors, but characters from their own family. These individuals then become the 'main' character for a particular location. Should these newcomers survive the resulting combat (taking it as read that, subsequently, the player continues and completes the quest), they later appear on the character select screen.

The Decisive Battle mode takes place on a number of locations on a map that details the lands separating the





Sue and Kagami. Each character has an individual route, although certain areas are visited by others. On arrival at a new location, players are invariably pitted against generic, 'stock' fighters. These identical assailants are quite obviously a compromise Square felt compelled to make in order to avoid excessive disc access. Only after these are dispatched does the battle proper begin – a fight to the death with a member of the rival family.

While the 'block' move common to all beat 'em ups is considered by many as prerequisite, SquareSoft has discarded the function for *Bushido Blade 2*. Opponent's attacks are now blocked with the player's own assaults and counter-assaults. The success of each parry is indicated by an appropriate visual effect. A white flash denotes the striking of weapons (or a weapon hitting a solid object), a blue flash signifies a solid, successful block. A green effect, though, indicates a weak attack, with the player in question consequently suffering a momentary lack of balance.

Although one clean strike ends a battle, it's possible to inflict and receive minor bodily damage. A hit on the torso reduces attack and defence speed; a blow to either leg hinders movement. Most devastating of all, though, is damage to the left hand. This removes the player's ability to make attacks with 'secondary' weapons, and reduces their offensive repertoire. Cruel and calculating

Format: **PlayStation** Publisher: **SquareSoft** Developer: **In-house** Price: **¥5,800 (£30)** Release: **Out now (Japan)**



Encounters between family members are the most exciting battles, especially when the rival faced is more powerful









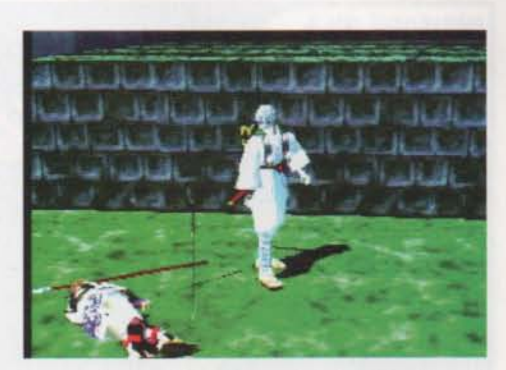
Though rather eclipsed by its surprisingly bloodthirsty intro sequence, *Bushido Blade 2*'s in-game gore accentuates the power of the connecting blow, accompanied by 'ripping' SFX

Bushido Blade 2 zealots could, therefore, confidently inflict minor damage (indicated by an orange flare) before dispatching their disheartened and almost defenceless assailants with an elaborate strike.

The lessening of abilities with non-fatal wounds gives *Bushido Blade 2*'s combat a definite air of authenticity. Few beat 'em ups could reproduce or evoke a similar sense of desperation in players when, badly injured, they attempt to block relentless attacks from a stronger opponent. Conversely, it's not uncommon to feel a modicum of genuine 'respect' for a CPU-controlled assailant who, despite serious wounds, continues to fend off well-structured assaults.

As with its predecessor, *Bushido Blade 2* offers players a selection of weaponry to choose from. A favourite with many will be the Katana, its light weight and speed lending itself to a spectacular brand of fencing. The sub-test of facing opponents with different weaponry makes *Blade* a difficult game to master. How, for example, would a player armed with a slow but powerful Nodachi blade attempt to beat an assailant armed with a Naginata? The latter, possessing a long range weapon (it's not entirely dissimilar to a 'pike') could be seen to have a considerable advantage. It's in these instances that secondary weaponry can be put to use. Kaun's iron club, for example, could be thrown, creating an opening for a main attack.

It's the sheer depth of *Bushido Blade 2*'s combat that makes it an appealing one-player game, but its multiplayer option is of an equally high standard. Joining the basic 'side view' is a unique first person option. In two-player battles, there is also the option to fight on separate PlayStations via a link cable. *Bushido Blade 2*'s player vs player battles can last for far longer than the average beat 'em up bout, with both fighters searching for a weakness in their rival's defence. A fight between two competent players is a sight to behold; feints within feints add surprising complexity.



Kaun stalks away from victory after slamming his blade into the ground – one of many such cut scenes

Bushido Blade 2 is a highly intricate gamer's beat 'em up. The delicacies involved in many of its combat situations will be lost on the casual player raised, as it were, on the comparatively straightforward action of *Tekken 2*, *Soul Blade* et al. It's also hardly the most visually accomplished of PlayStation games. While its characters are well-animated and designed, the battle arenas are often simplistic, their furniture decidedly spartan. Its quest mode is also hamstrung by regular disc access which, given Square's defection from the Nintendo fold, is somewhat ironic – *Blade 2* would perhaps be best suited to a cartridge-based format.

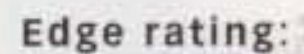
Ultimately, this second outing is not a significant step forward from its predecessor, merely an accomplished update that addresses the original's most significant flaws. It's an engrossing and eminently more playable game, but it remains to be seen whether or not SquareSoft's take on the beat 'em up will be regarded, in time, as the catalyst for a fascinating sub-genre, or as an evolutionary dead end.



The Sue family's final adversary (left) is a heavily armoured warrior

Edge rating:

Eight out of ten



Need for Speed 3



Every car featured is a faithful reproduction of its real life counterpart and boasts a commendable level of detail. The design of the tracks improves as they get longer, further into the game (above)





Some courses have impressive segments (top) which aren't necessarily as realistic as others





NFS3's courses can be mirrored and inversed for a healthy variety. Civilian traffic on the circuits is selectable, and adds an extra challenge element

Originally a killer app for the flagging 3DO system (**E**16), EA's *Need for Speed* series has since enjoyed mass-market exposure on the PlayStation and PC – seemingly at the expense of everything that made the original game so enjoyable. This latest version marks an improvement, however.

Presentation is taken care of with EA's usual finesse in this field, and the initially daunting number of options are clearly presented by a series of menus. Indeed, players can choose to practice (complete with customisable tutorial mode), single and knockout races, tournament or hot pursuit. The latter proves particularly enjoyable, as drivers must race an opponent or go it alone along one of the game's tracks while constantly trying to evade the patrolling police vehicles. This can be more difficult than anticipated, as patrol cars will initially attempt to ram players off the road and then begin to organise a more elaborate strategy such as setting up road blocks.

The CPU-controlled opponents are no friendlier, however. Not only will they bump their way past, but they seem intent on blocking any kind of potential overtaking manoeuvres by swerving across the track, positioning their car right in front of the player's headlights.

Initially only four tracks are available, yet success in the tournament mode will open the remaining six circuits as well as offering a wider choice of vehicles. A nice feature is the ability to choose any of the available cars before a race, therefore allowing players to best match their chosen vehicle to the track they're about to compete in. Furthermore, it's possible to customise a wide range of the vehicle's facets: gear ratios, brake balance, suspension stiffness, aerodynamics, and tyre choice among others. While the physics models aren't as complex as those found in *Gran Turismo*, the vehicles differ substantially from each other and also react accordingly to the road surface. This is particularly noticeable in simulation mode, but the more forgiving arcade option is still fairly engaging, and offers its share of enjoyable moments. Unlike *GT* though, the other cars on the road have retained some of their weightlessness from previous PlayStation versions, consequently failing to convince the player of any realistic dynamics at work.

Yet, there are several enjoyable features in *NFS3*. Graphically, the game's throwing an impressive amount of polygons at an equally impressive speed and aspects such as dynamic lighting (particularly during night-time police chases, and lightning in stormy conditions), reflection effects and more detailed cars add to the overall graphic quality.

The tracks, too, boast good design and eventually open up into longer versions of their original incarnations. Sadly, EA has preferred to stick to the idea of closed circuits which was first introduced in the PC conversion of *Need for Speed*, rather than having kept the open road 'A to B' segments of the 3DO title which provided players with a real sense of progression and satisfaction.

Ultimately, *NFS3* doesn't manage to regain the 'rawness' of the first instalment, remaining a fun title that will undoubtedly gain admirers at the expense of most racing aficionados.

Edge rating:

Seven out of ten

Format: **PlayStation** Publisher: **EA** Developer: **In-house** Price: **£40** Release: **Out now**

testscreen round up

Interstate '76: Nitro Riders

When Activision's funk-fueled car wars game *Interstate '76* first shimmied its way onto the PC, the retro styling not only set it apart from the mostly sci-fi orientated 3D titles out there, it also gave the developers the ideal excuse for serving up outdated visuals. The flat-shaded, textureless look was all part of that '70s style, a clever way of presenting the 'Dukes Of Hazzard'-meets-Tarantino carnage – or so it was claimed, for this standalone semi-sequel offers a 3D engine capable of generating a far more detailed view of the world of flares and muscle cars. It seems Activision was just biding its time all along, waiting for hardware accelerators to gain popularity.

***Nitro Riders* succeeds as well as any new edition can, and not just because of the improved visuals. Here is a game that works as a standalone title, featuring 20 new single-player missions and 25 multiplayer melee arenas, but will also work in conjunction with the original game to upgrade its ageing code. It also helps that the basic concept was so outstanding in the first place. Fitting vehicles out with heavy artillery then taking them into battle, be it in the plot-driven missions or the melee mode, is still a uniquely and hugely appealing idea. And with Internet play now far more widespread, playing *Nitro Riders* may well become one of the most popular online pastimes around.**

Edge rating:

Eight out of ten



Format: **PC** Publisher: **Activision** Developer: **In-house** Price: **£20** Release: **Out now**

Dark Reign: Rise of the Shadowhand

Although lacking the visual appeal of GT Interactive's competitor *Total Annihilation*, *Dark Reign* remains the most technically advanced real-time strategy game for the PC. No other real-timer has managed to offer as much depth and such a fine level of control over each individual unit. Now, for those dedicated players who have completed the game, comes *Rise of the Shadowhand*, the first *Dark Reign* expansion disc, which builds on the background story and plot of the original game.

Shadowhand is a comprehensive set of additions to *Dark Reign*. A new mini-campaign offers 14 missions and two new armies, the Imperial Shadowhand and the Freedom Guard Xenite. Between them, these groups feature over a dozen new units, including a variety of alien organisms.

The multiplayer side of the game has also been expanded. There are four new maps, fresh options allowing eight-player Internet play with all armies and units, and cooperative missions that allow players to fight against a computer opponent.

Rise of the Shadowhand also adds an interesting feature to the gameplay of *Dark Reign* by allowing players to shape the battlefield with units that can build roads and create artificial swamplands. Clever use of these units can have a great effect on the course of a battle, especially in multiplayer games.

Throw all this together with a selection of new movies and an enhanced game editor that allows for the creation of multiplayer campaigns, and the result is a very impressive expansion to an already impressive game. If only all add-on disks were this comprehensive.

Edge rating:

Eight out of ten



Format: **PC** Publisher: **Activision** Developer: **In-house** Price: **£20** Release: **Out now**

Alundra

Psygnosis's PR, for its recently acquired Japanese roleplayer, would have you believe that its heritage lies in Nintendo's classic *Zelda* series. But although that may be technically true, *Alundra* owes far more to the many 16bit titles, like Quintet's *Soul Blazer* and *Illusion of Time* on the SNES or *Story of Thor* on the MegaDrive and Saturn, that came after Link's exemplary outings.

Alundra is a strictly-by-the-book action RPG. Although it boasts some nicely detailed hand-drawn graphics, a decent twist in the story (the dungeons the hero encounters are actually nightmares he has the ability to enter) and an accomplished soundtrack (should the player's tastes run to Japanese progressive pop, that is), the game's plusses are more than offset by the laborious back-and-forth nature of the puzzles that make up the bulk of the action. Add a main character whose movement is restricted to nothing more than a brisk jog and a distinct lack of save points, and it's all too easy to find yourself repeating the same 20 minutes of 'find the switches' time and time again. *Alundra*'s fate as an average example of this style of game is finally sealed by its 'surf dude' translation by those masters of the flippant, US company Working Designs.

Always competent but never sparkling, *Alundra* is a title new RPG fans wooed by *Final Fantasy VII* should approach with caution, while old hands would do better to dig their SNES's out of the cupboard and track down the UK release of Quintet's far superior *Terranigma*.

Edge rating:

Six out of ten



Format: **PlayStation** Publisher: **Psygnosis** Developer: **Climax** Price: **£40** Release: **Out now**

Wetrix

Although comparisons with a certain Russian-designed videogame are perhaps inevitable, *Wetrix* owes less to Alexey Pajitnov's timeless *Tetris* than to its flawed sequel *Weltris*. But if developer Zed Two's inspiration is apparent, so is the quality of its reiteration of a popular concept.

Play begins with an isometric-perspective flat area, with objects descending from above. The first task is to build a perimeter wall with a supply of uppers, which raise the affected area by one level. Other devices soon begin to appear; downers have the opposite effect to uppers, while bombs blow holes in the landscape.

***Wetrix*'s focus is on containing water, falling both as steady rain and through dedicated icons. If this flows out through gaps, a gauge to the right of the display will begin to fill, its peak representing the end of that session. To prevent gamers from merely building huge walls, an Earthquake Meter increases with each upper placed. If this reaches maximum, a carefully-built landscape can be devastated.**

Once potential drainage points are blocked, there are further ways to score more points. Indeed, *Wetrix* is almost entirely score-oriented, bar a two-player competitive mode where success is judged by survival. While most puzzle games start on easy levels, players here will find themselves at the high score screen with no idea of how the game ended, such is the game's unforgiving nature. The start speed of descending objects is comparable to that of, say, level eight of *Tetris*. *Wetrix* is a puzzle game for those who appreciate a challenge, and that could well exclude the likes of casual players seeking an update of Pajitnov's classic.

Edge rating:

Seven out of ten



Format: **N64** Publisher: **Ocean** Developer: **Zed Two** Price: **£50** Release: **May**

Deathtrap Dungeon

Developed under the watchful eye of author Ian Livingstone, *Deathtrap Dungeon* is the first computer game to be based on one of the *Fighting Fantasy* series of gamebooks that enjoyed a brief wave of popularity in the '80s. As in the book on which it's based, the game casts you as a wandering hero attempting to reach the end of a deadly underground labyrinth and defeat the ancient dragon that lives there.

Deathtrap Dungeon is a 3D arcade adventure; the character is viewed from a third-person perspective and must progress through a series of increasingly difficult levels, killing monsters, solving puzzles and avoiding traps. Along the way the player will collect a variety of different weapons, spells, and other power-ups to help the hazards ahead.

Comparisons between *Deathtrap Dungeon* and the *Tomb Raider* games are inevitable: they share the same basic structure and publisher. *Deathtrap Dungeon* can't match *Tomb Raider 2's* visual appeal; although the background graphics are good, the main characters and monsters vary from impressive to pathetic, and all lack the smoothness and animation of Miss Croft's latest outing. On the other hand, *Deathtrap Dungeon's* level design is very good, and it makes much better use of camera angles, giving the game a cinematic feel which goes a long way towards making up for its lower-quality graphics.

Deathtrap Dungeon isn't going to seriously challenge *Tomb Raider 2's* dominance of this genre, but it is a solid, playable and well-designed fantasy romp that will at least help pass the time until Lara Croft's next appearance.

Edge rating:

Seven out of ten



Format: **PlayStation** Publisher: **Eidos Interactive** Developer: **In-house** Price: **£40** Release: **Out now**

Tenchu



Using beat 'em up elements in conjunction with the now-familiar third-person arcade adventure format epitomised by *Tomb Raider* has certainly been done before, most recently in Kalisto's *Nightmare Creatures*. Yet the imported *Tenchu* merits attention, not only because it's so successful at evoking the feudal Japan era so beloved of so much anime, but because it joins in on the growing trend of the more earthbound stealth fighter.

GoldenEye showed just how crucial the ability to sneak up on enemies could be, with many situations proving impossible unless a more cautious, sniping attitude was adopted. *Tenchu* doesn't milk the idea quite so successfully, but it does provide PlayStation owners with an alternative until the arrival of Konami's *Metal Gear Solid*.

In time-honoured fashion, the player can choose from two protagonists, the gruff Rikimaru and more athletic female character Ayame. The choice is actually more of a cosmetic one, as combat in *Tenchu* relies as much on the use of extra weapons like throwing stars as it does on swordplay. Both characters possess the same fighting moves, which offer enough control and variation to make combat skill-based and pleasingly visceral despite their apparently limited nature. The ability to backflip against walls and even use a grappling hook gives the already smart visuals extra flair, as does the use of cut scenes to depict the slayings that follow a successful surprise attack on a character. Watching a close-up of a computer game hero slice the neck of an enemy is wonderfully cinematic, though it's certainly something that only mature gamers should witness.

But while there are numerous cinematic touches, and the levels possess plenty of strong period detail, there's ultimately not quite enough here to sustain interest. Only a handful of enemy types are used, the end-level bosses tend to disappoint, and there's never quite enough to do beyond tap the hack button a few times and progress to the next victim. *Tenchu* is certainly well above average, but if more had been made of those stealthy ninja abilities, it could have been so much more.

Edge rating:

Seven out of ten

Format: **PlayStation** Publisher: **Sony Music Entertainment** Developer: **In-house** Price: **¥5,800 (£30)** Release: **Out now (Japan)**

Quake 64

Time is a fickle patriach where the software industry is concerned, rendering many of its titles obsolete within surprisingly short periods. *Quake*, one of the biggest hits the PC market has ever known, looks dated as an N64 release; its largely simplistic architecture is a far cry from the believable locales of *GoldenEye* or the promise exuded by early pictures of *Turok 2's* levels.

But even if it's aged visually, Midway's conversion can at least boast level design from id Software, regarded by many as the best in the business. Lambasted by certain quarters for being too repetitive and, in essence, rather boring (yet worshipped rapturously by others), *Quake's* oneplayer game is a measured slice of shoot 'em up action.

But it's the multiplayer aspect of *Quake's* original PC release that makes it such a potent force; even now, with its sequel enjoying a considerable level of success, local networks are still brought to a standstill by office-wide competitions. For this facet of *Quake* to be abbreviated here into the form of a simple one-on-one option rather robs id's title of its raison d'etre.

***Quake 64* offers a sufficiently different challenge to justify its position on shelves alongside the likes of *Turok*, *GoldenEye* and 3D Realm's serviceable update of *Duke Nukem 3D*, but this is unlikely to guarantee its success. Given the relative failure of *Doom 64* at retail, it may be that N64 owners expect more than ageing PC conversions.**

Edge rating:

Six out of ten



Format: **N64** Publisher: **GT Interactive** Developer: **Midway** Price: **£50** Release: **Out now**

Snow Racer '98

Slipping out from under the wing of the Infogrames group, *Snow Racer 98* is an ambitious attempt to combine credible interpretations of skiing and snowboarding in one package. On the face of things, the game appears to have several aspects in its favour. From the startup screen's graphic design, via the inclusion of name ski and board manufacturers, to the good selection of events available, much has been done right.

Controlling the characters, particularly in the snowboarding sections, at first seems unwieldy after the neat interface offered by Nintendo's *1080° Snowboarding*. However, the player can at least adjust to *Snow Racer's* system; what can't be adjusted to is the ridiculously short field of view delivered by the game's 3D engine, with obstacles popping into sight moments before they need to be avoided. The shame is that *Snow Racer's* courses are actually well laid out, although there are a few too many uphill gradients to slow down the action.

Infogrames has done an injustice to this game by releasing it at this point: along with tthe winter sports season now drawing to its close, *Snow Racer* would have benefited immensely from another six months in development. By ironing out flaws like the poor interaction of the character with the environment and irritations such as having to complete championships in one attempt, a far better reception could have been assured. In this form, *Snow Racer 98* is fun, but by no means great.

Edge rating:

Six out of ten



Format: **PlayStation** Publisher: **Infogrames** Developer: **Pam Development** Price: **£40** Release: **Out now**

Rascal

Attention has been lavished on *Rascal* since day one: the use of the PlayStation's high-resolution screen mode, the inclusion of rarely seen goodies such as environment mapping to impress the critics, and a main character design by Jim Henson's Creature Shop to attract the target audience of pre-teens all show the effort that's been expended. That this hero, depicted in 3D using a dynamic camera, is of the running, jumping, collecting variety confirms that Psygnosis is hoping to be the first with a credible *Mario* alternative for Sony's machine. Sadly, *Rascal* once again proves Nintendo's winning formulae aren't quite so easy to ape.

The most fundamental problem arises when simply trying to control Rascal himself. Because the levels are based around numbers of small linked rooms, the dynamically moving camera is forced to dolly and pan like some mad dervish, the low ceiling further compounding the problem. It causes the sort of disorientation even experienced gamers will have problems with, and often makes it impossible to see energy-sapping creatures as they approach. That these floor-scurrying nasties have a habit of materialising mere pixels from Rascal adds to the frustration.

The main aims, which involve visiting past, present and future versions of themed levels and collecting pieces of an hourglass to access locked areas, are pitched at just about the right level. But while the environments are designed with a keen eye for cartoon staples, the enemies facing Rascal within them rarely strike the right note. Battling spiders, rats and scorpions is dull enough, but even the cowboys, knights and other more human adversaries look and act far too much like machines. The underwater levels fare better, but even here there's none of the character interaction that makes *Super Mario 64* such a joy. And should there really be quite such a reliance on pixel-perfect leaps in a game aimed at 8 to 12-year-olds?

In fact *Rascal* feels like a poor cousin to *Mario 64* in practically every way, with its fractured room-based design, lack of enemy AI, overfamiliar theme ideas, imprecise and confusing controls, and – most bizarrely of all – a central character many youngsters will find cliched and unlikeable. *Rascal* may have the graphical edge on PlayStation platformers like *Croc*, but it's all dressed up without any real style or flow.

Edge rating:

Five out of ten



Format: **PlayStation** Publisher: **Psygnosis** Developer: **Traveller's Tales** Price: **£40** Release: **Out now**

Diablo

A massive hit on the PC last year, *Diablo* was a fantasy roleplaying game that combined traditional RPG elements with arcade gameplay and multiplayer support, including Internet play. The result was something of a thinking man's *Gauntlet*.

This PlayStation release is a fairly straight conversion; the player chooses one of three generic types of character – warrior, sorcerer or rogue – and sets about saving a town from the ravages of the evil creatures living in the vast underground complex below. This mainly involves exploring a series of large levels and killing everything that moves, with brief trips back up to the town to buy better weapons and equipment. In addition, there are a number of specific quests to be completed, such as killing a specific boss monster or recovering a powerful magical item.

As with most PC games, *Diablo* was designed to be played with a mouse, but the fairly simple controls have been translated into joypad commands without much trouble. The game's graphics aren't as impressive as the original, and are let down by jerky animation and the PlayStation's relatively low resolution, but the atmospheric sound effects are a slight improvement. Best of all, two players can combine their dungeon-cleaning efforts, making it an atypical PlayStation RPG.

***Diablo* can't compete with the lush splendour of *Final Fantasy VII* or the tactical challenge of *Vandal Hearts*, but serves as a relatively painless introduction to the often confusing world of computer roleplaying games.**

Edge rating:

Six out of ten



Format: **PlayStation** Publisher: **Electronic Arts** Developer: **Blizzard Entertainment** Price: **£40** Release: **Out now**

Mystical Ninja: starring Goemon

Thus the title formerly known as *Ganbare Goemon 5* finally makes it to European shores. The heavy Japanese quirkiness and general air of oddity that permeates the game meant that, for a time, a European release was very much in doubt. Admirably, Konami has taken the risk and made the conversion that gives PAL N64 owners their first taste of next-generation roleplaying.

And *Mystical Ninja* has weathered the translation to English remarkably well. The crass American drivel many were expecting has failed to appear, apart from one or two instances of 'butt kicking', and the perceived culture gap has proved no obstacle to the surreal and satirical humour that abounds. (The villains of the piece are westerners obsessed with transforming Edo Japan into a huge stage musical. Latter-day Hollywood, anyone?)

Elsewhere, the bright and authentic styling remains, as do the myriad and eclectic sub games. This is a vast and sprawling experience. The work done on the release is a triumph for Konami that augurs well for the future.

Edge rating:

Eight out of ten



Format: **N64** Publisher: **Konami** Developer: **In-house** Price: **£55** Release: **Out now**

Gex 3D: Enter the Gecko



The nagging suspicion remains that the PlayStation has an inferiority complex when it comes to 3D platform games: Nintendo's *Super Mario 64* rightly remains the benchmark in level-leaping and the attempts made by PlayStation developers to match it have failed miserably. *Pandemonium*, *Crash Bandicoot* and their associated sequels do not offer glorious, free-roaming 3D, and Argonaut's *Croc* hardly took the genre to new heights. Psygnosis has touted new genre entry *Rascal* rather desperately at the 8 to 12-year-old market, which doesn't excuse the fact that the control of said game is appalling and the gameplay almost non-existent.

Which leaves *Gex 3D*, a radical reinterpretation of a Crystal Dynamics offering from the extinct 3DO platform. The developer has since clearly spent a great deal of time with Nintendo's water pipe repairer. The central hub of *Gex 3D* is nigh-on identical to that of *Mario 64*, which is no bad thing. The player hops Gex through TV screens to select a level, for example, and pats the shoulder pads to alter the camera angle. There's an immediate, almost comforting familiarity, here.

The levels have a televisual theme, each adopting a different genre, so Gex finds himself careering through cop and horror arenas, a kung fu world and a somewhat bizarre *Star Wars*-like world where he gets to thwack foes with a light sabre while sporting stormtrooper-style armour. Although huge, the levels are hardly original. The usual frustrating, rotating platforms are given a run out, but thankfully the slippy ice world remains absent. On completing specific tasks on each level, the player is rewarded with a remote control that triggers further progress. Slay the baddies, garner power-ups hidden in televisions, head for pastures new; it's perfectly competent, if uninspiring, platform fare.

The aforementioned light sabre is just about the only weapon that Gex gets to utilise. Other than that, he makes do with swishing his tail – which is terribly disappointing, given the James Bond persona Crystal Dynamics has attempted to mould.

The action is complemented by a selection of verbal one-liners performed by ageing comic actor Leslie Phillips. Despite their frequent surrealness ('I feel like I'm in Boy George's pants!'), they soon grate. While *Gex 3D* is possibly the best free-roaming 3D platformer for the PlayStation, the game's design is ultimately bereft of real inspiration.



Edge rating:

Seven out of ten

Format: **PlayStation** Publisher: **Take 2** Developer: **Crystal Dynamics** Price: **£45** Release: **Out now**

Prince of Persia

One of the most influential platform games ever created, *Prince of Persia* introduced innovative concepts to a genre dominated by Eastern codeshops

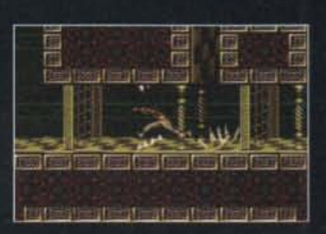






The SFC/SNES version improved upon the minimalist backdrops and layout of the Mac original, offering more varied locations and levels





***Prince of Persia*'s conversion to the Super Nintendo was effectively the title's crowning glory. Better graphics and music, plus great control…**

A defining moment for the platform genre, *Prince of Persia* is arguably the most innovative platform game ever developed outside of Japan. Indeed, its contributions to videogame design, though taken for granted by modern gamers, are by no means insignificant. Pioneering in its use of animation based on motion capture, Broderbund's classic also introduced a now-familiar talent common to many platform game stars – the ability to grab ledges and climb to safety, both from flying leaps and standing positions.

Certain critics accused Core of merely recreating *Prince of Persia* in 3D with its ubiquitous *Tomb Raider*. And, while the influence of the older title is brazenly apparent in Lara Croft's two adventures, credit must go to the Derby-based softco for releasing such a fitting polygon-based tribute, first.

Prince of Persia was converted to almost every 8- and 16bit format imaginable – including, bizarrely, Miles Gordon Technology's ill-fated 'Super Spectrum', the *Sam Coupe* – but its sequels failed to achieve similar levels of success. Today's machines are more likely to play host to the forthcoming *Prince of Persia 3D* (see p52) – probably making its console appearance sometime after the PC.

Publisher: Broderbund	1986	No 26
Developer: Jordan Mechner	Various	

Power Drift

Once a highly demonstrative show of coding prowess, *Power Drift* is the latest but, lamentably, most disappointing *Sega Ages* release

Sega's ground-breaking usage of sprite-scaling hardware saw the Japanese giant dominate arcades during the '80s, with a series of – for the time – visually astonishing titles. *Power Drift* was perhaps its most self-indulgent release of that era; a flexing of hardware muscle that eclipsed even its own 'rival' offerings.

Power Drift's release as a solitary title on this latest *Sega Ages* volume is a surprisingly arrogant publishing decision from Sega. While it may once have represented a happy marriage of cutting-edge coding and solid, well-judged racing action, its value has been diminished by age and the many gameplay advances made in the racing genre since its debut. That said, *Drift* remains a surprisingly compulsive title. Its Saturn horsepower, however, falls short of delivering arcade perfection. Glitchy and lacking the original's fluidity, purists could well be disappointed. Still, this *Sega Ages* release has one thing in common with its arcade parent – awful collision detection…

Sega Ages: Power Drift will almost certainly never reach UK shores – making it a purchase for the Japanese gamer alone.

Format:	Saturn
Publisher:	Sega
Developer:	In-house
Release:	Out now (Japan)
Origin:	Japan











While *Outrun* and *Afterburner* had used similar technology, *Power Drift*'s usage of Sega's sprite-scaling hardware was bigger and bolder – a statement to both rivals and gamers in videogame form. This *Sega Ages* conversion comes close to being a perfect port, but lacks the 'solidity' of its arcade parent

Marvel vs Capcom

Superheroes and classic game characters clash in the ultimate fighting crossover



The Capcom team is perhaps the most interesting. Strider brings new skills into the game, while War Machine is simply Iron Man in a different outfit







The player can take part in massive four-character riots (top), and has a variety of flamboyant specials and combos at their disposal (above left)





The intro screen (top) and the Partner select screen (bottom) exude Capcom's visual style

Obviously not content with raiding the Marvel cast list several times in the past, Capcom has now produced what will surely prove to be the dramatic finale of its superhero series, pitching a pick 'n' mix selection of its own back catalogue superstars against a veritable army of Stan Lee's finest muscle-bound creations.

Shown off recently at ATEI, *Marvel vs Capcom* features 15 initially available characters, culminating with the mammoth end of game boss, Onslaught (who took on the whole of the Marvel universe in a recent epic X-Men story). In the *Marvel* corner there are dependable protagonists like Spiderman, Hulk, Thor, Captain America and Wolverine, but the real pull is Capcom's imaginative retro assemblage. As with *Street Fighter Alpha*, the designers have really rooted about in the archives, coming back with some surprising choices like Sir Arthur (from *Ghouls 'n' Ghosts*), as well as a few predictable suspects. Mega-Man, Strider and Captain Commando, for example, have all been resurrected for combat duty and they work brilliantly as modern 2D fighters.

As for the game itself, Capcom has tweaked its standard *Marvel Super Heroes vs Street Fighter* engine (**E**46), conserving the tag-team system (players choose a fighter and then an assisstant or 'special partner' who can be called on a limited amount of times in each bout), but cleaning up the animation and visual effects. Predictably, the special moves are gloriously over the top, and the brash, primary-coloured nobility of Marvel's ensemble has been perfectly captured. The new characters have plenty of their own tricks, too – Strider uses his sword as an effective mid-range weapon, while the well-armed Captain Commando has a laser *and* a flamethrower. This certainly looks to be the last word in beat 'em up comic crossovers. Unless Capcom is currently working on a deal with DC or 2000AD...

Developer:	Capcom
Release:	TBA (UK)
Origin:	Japan



Zangief performs a dramatic power slam on the hulk while Mega-Man holds on

Fighting Vipers 2

Sega packs a powerful punch with its next generation Model 3 technology

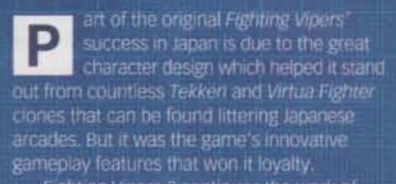


In addition to the fighters' new fighting technique and special moves repertoire, the graphics have also been improved thanks to Sega's Model 3 arcade board





The improved fighters' design is the work of Imai Toons, whose talent has produced a series of popular Japanese advertising characters



Part of the original *Fighting Vipers'* success in Japan is due to the great character design which helped it stand out from countless *Tekken* and *Virtua Fighter* clones that can be found littering Japanese arcades. But it was the game's innovative gameplay features that won it loyalty.

Fighting Vipers 2 continues the work of its predecessor, this time backed by Model 3 visuals and further gameplay additions, such as the ability to perform a 'Super KO'. This move is only possible at specific moments during combat and if successful can defeat an adversary with a single blow. However, failing to connect the move will leave the player's character momentarily defenceless against an opponent's attack.

Three new characters join the existing eight, but all possess new attack moves. Progression through the game will differ so that better fighters will go to different stages and face tougher opponents.

Sega has added enough new features to the already accomplished basics that should ensure *Vipers'* global popularity.

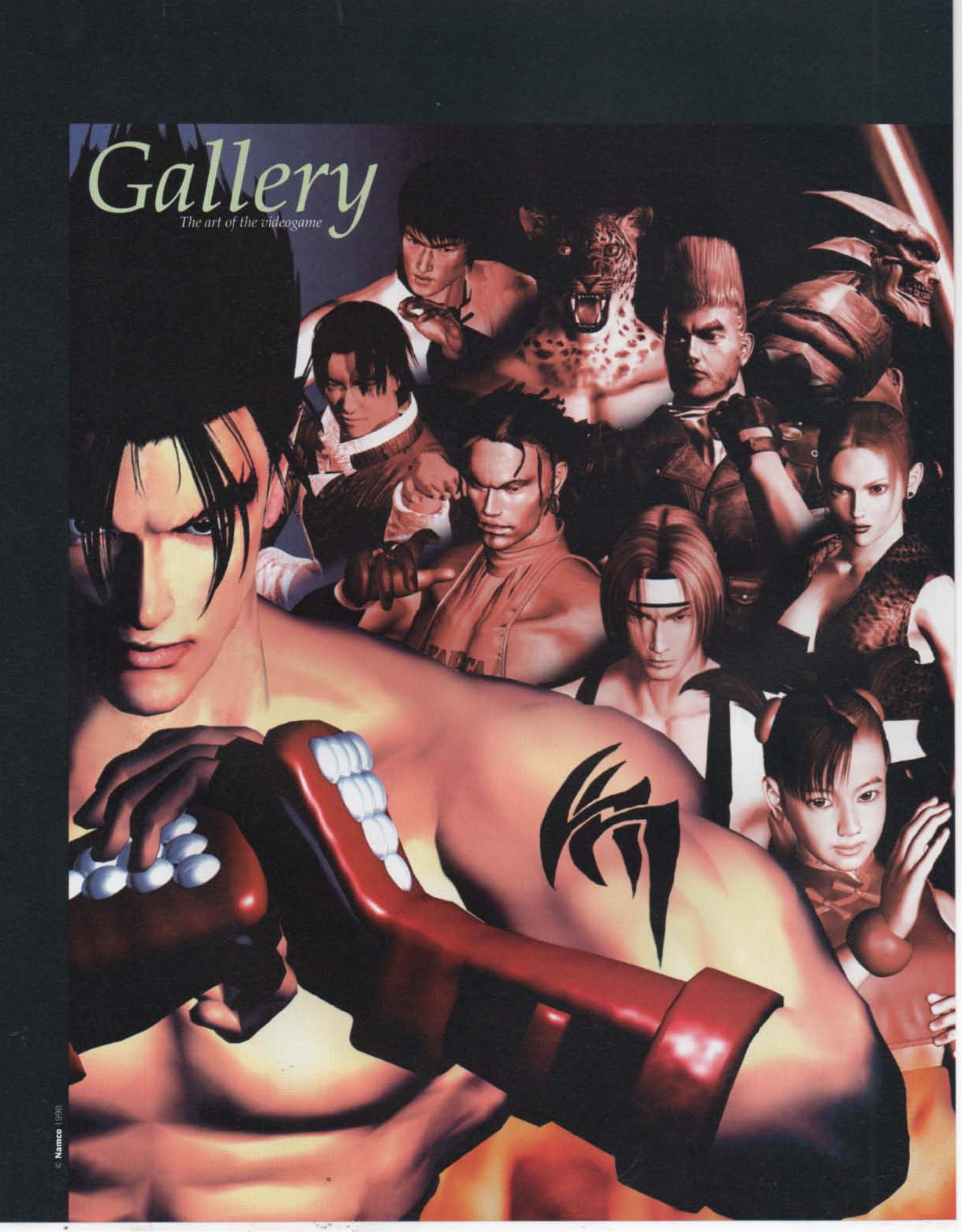






Timing the 'Super KO' moves requires skill, but successful players are rewarded with highly extravagant and colourful sequences typical of any self-respecting Japanese beat 'em up

Developer: Sega
Release: Out now
Origin: Japan


Gallery
The art of the videogame
© Namco 1998













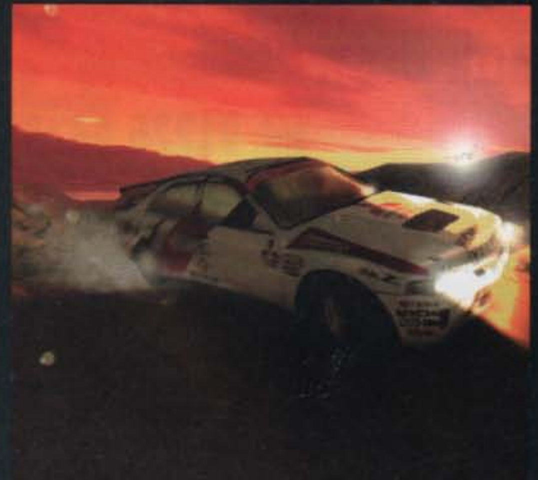
As demonstrated on the cover this issue, the third installment of Namco's *Tekken* features highly detailed character designs and backdrops. Masashi Kubo, one of the artists working on the game, drew the backgrounds with his left hand, after breaking his favoured right arm in a motorbike accident.

Images rendered by Namco, notably **Masashi Kubo** and **Yoshinari Mizushima** ▶

Mucky Foot's high-end rendering artist Stuart Black created this image from character designs by Fin McGechie, for the company's debut game *City of the Fallen* (working title). The influence of graphic novels on McGechie's style is unmistakable. This female is probably one of the game's lead characters, but Mucky Foot is keeping tight-lipped. Incidentally, note the falling leaves which are one of the most impressive details **Edge** has witnessed in the early game engine.

Images rendered by Mucky Foot's Stuart Black using 3D *Studio Max 2* in Win95, running on a Pentium 2 P300 with 192Mb RAM and 8Gb hard disk







Europress has been constructing an enviable reputation for itself with a string of rally titles, culminating in its latest, *Tommi Makinen Rally*. While the in-game visuals are notably detailed, these promotional renders are some of the best to date. Exacting in detail, lighting and composition, images such as these suggest that the difference between reality and virtuality will soon become indistinguishable. The PlayStation III, perhaps?

Images rendered by Kevin Connelly at Strange Productions using 3D Studio Max

DEVELOP

Videogame creation under the microscope

Yaroze competition results

As initially reported in **E**55, Sony celebrated the first anniversary of Net Yaroze's release in Europe by organising a game creation competition. **Edge** and Sony acted as judges in the contest for SCEE Net Yaroze members, and titles across a broad variety of genres were entered.

The overall standard of the entrants wasn't quite up to that of Yaroze efforts from Japan (which approach the quality of commercial PlayStation games) but this reflects the relatively short time that competitors have had with the system and that most of the titles were created by teams of only one or two people. Games were roughly split into those that modelled themselves on simplistic 16bit titles in 2D (notably a James Shaughnessy's *Thrust* variant, *Gravitation*, and a couple of *Boulderdash* clones) and more ambitious attempts to harness the PlayStation's 3D power.

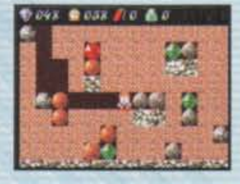
The winner, however, was an original arcade title, *Blitter Boy*, coded by Chris Chadwick from Yeovil (Chris wins a Sony DSC-F1 digital still camera). It reminded **Edge** of William's *Robotron* and LucasArt's *Zombies* on the SNES. Excellent graphics, coupled with good animation and use of colour, marked *Blitter Boy* out, and though lacking sound, it was otherwise technically accomplished with a huge amount of sprite movement and no discernable slowdown (Chris talks about his experiences of programming on Net Yaroze below). James Pitts placed second with *Z2*, an imaginative design inspired by *Paradroid* and *Quazatron*'s blend of exploration and robot grappling. Third was Scott Evans' *Bouncer*, an innovative slant on *Breakout* using a seesaw platform to bounce shells up at the target wall.

Edge looks forward to an even higher standard for next year's competition as Europe's budding community of Net Yaroze users gain more experience with the system.











Chris Chadwick's winning *Blitter Boy* (top left), was followed by *Z2* (above left) and in third place, *Bouncer* (top right). *Gravitation* and *Rocks and Gems* (right, centre right)

Yaroze winner speaks

Fresh from his deserved win at Sony's first ever Net Yaroze game creation competition, Chris Chadwick related his personal experiences of the system to **Edge**...

Edge: When did you start working on the game?
Chris Chadwick: I'm not sure, as *Blitter Boy* evolved from my very first Yaroze program which simply displayed a single sprite onscreen. I then just kept building on this – make the sprite controllable, then animated, make it fire bullets, add background graphics, implement a scrolling play field, and so on.
Edge: What was the hardest part?
CC: Getting used to Yaroze was the hardest thing to overcome. Ordering tables, double buffering and parallel processing were all new to me. The fact that I was starting out with only a bare bones knowledge of C didn't help, either.
Edge: What was the inspiration behind it?
CC: When I reached the stage where I could start developing some kind of game, I originally thought of doing a *Robotron*-type affair – graphically very simple and not too taxing for a first project – but I got carried away and started introducing more complex graphics and game elements.
Edge: What do you think of the Yaroze?
CC: It's something of a godsend to someone like me, who was really keen to get into 'serious' game development, but was finding the PC too much. Things like the horrid memory model, confusion over graphics APIs and the ever-changing 'minimum specification' makes the PC – in my mind – a very non-standard, standard, if that makes sense.

By contrast, the Yaroze is everything the PC is not – a stable, dedicated game development environment. The library functions coupled to dedicated hardware take much of the hard work out of realising quality game presentation. This means more effort can be spent on developing gameplay, that all-important aspect of any game, which no dedicated hardware exists to help you with!

Also, being able to communicate with other members via the news groups and Website is something I consider nothing short of essential. Of course, not everybody is completely satisfied – complaints abound about poor documentation, not being given libraries from the full kit, and disgust has even been voiced at the colour of the boot CD-ROM.

The Yaroze is everything the PC is not – a stable, dedicated game development environment

Edge: What do you plan to do after this? You must be hoping to forge a career in the games industy?
CC: First, I'm going to finish *Blitter Boy*. There's quite a bit I've yet to add to it. I haven't thought much about what I'll do after this, except that I want to try something more original. As for a career in the games industry, I'm sure that's the aim of the majority – if not all – of the Yaroze members, myself included.





Chris' technically sound *Blitter Boy* requires the player to shoot the ghosts and save the babies



Next issue **Edge** reports on the development of a title that could set a high watermark for PC action adventures. *Outcast* is the work of Appeal, a Belgian developer actively swimming against the tide of PC 3D accelerator technology in pursuit of software-driven excellence. And ironically, its efforts cast a considerable shadow over even the latest accelerated PC titles **Edge** has witnessed. **E**59 showcases one of the most striking and ambitious games of the year.

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